



April 1976 30p

magazine for plastic modellers

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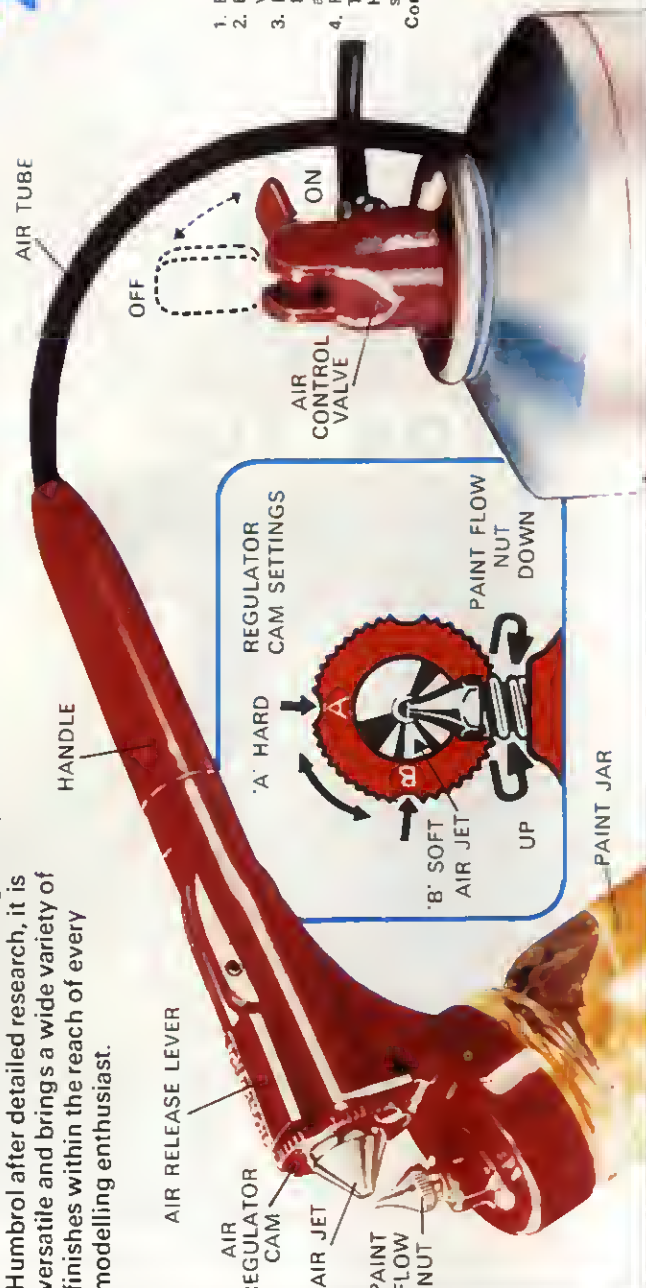
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On the cover

Top The three types of aircraft currently in use with 4FTS at RAF Valley (eventually to be replaced by the Hawk — see page 444) are pictured in this fine shot from S. G. Richards: Hunter F6 (XF527/70), Hunter T7 (XL613/91) and Gnat T1 (XP504/04). **Left** Foden FH70 gun tower (see also page 444). **Right** Private, Light Company, 38th Foot, by Gerry Embleton, from *The British Army in North America 1775-83* (Osprey). See pages 456-9 for modelling details.

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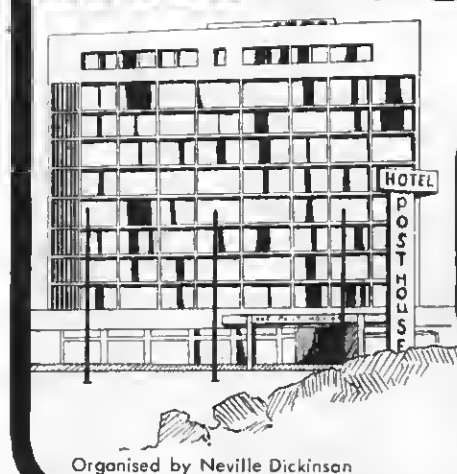
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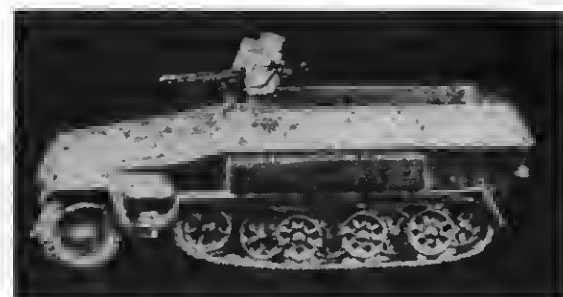
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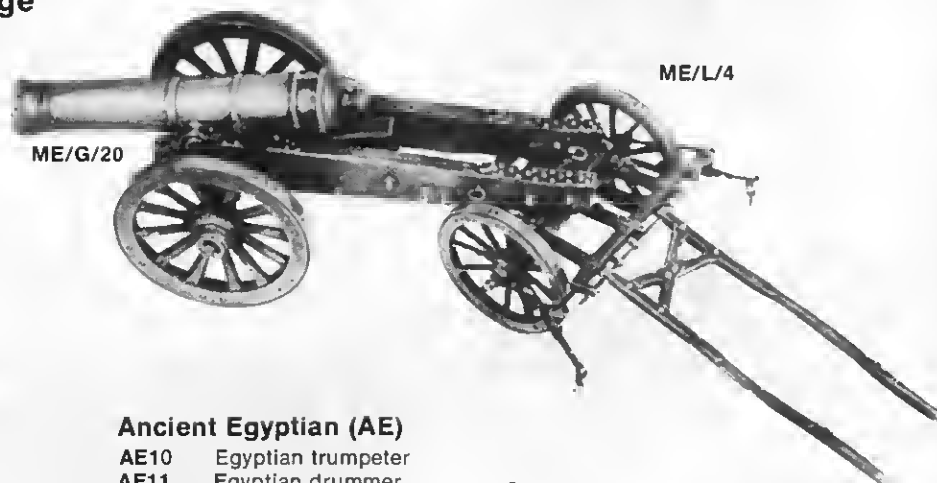
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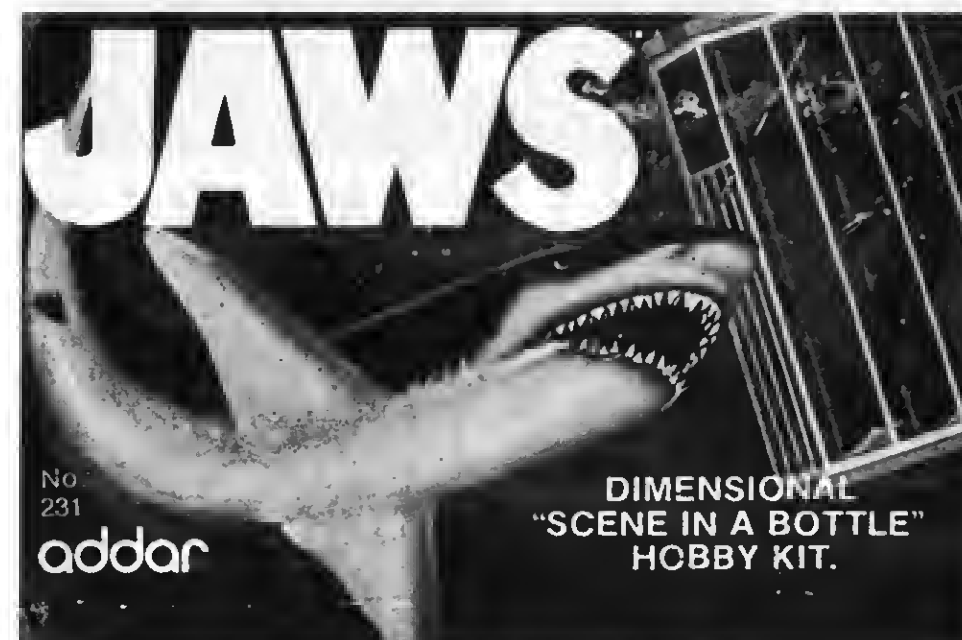
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ADDRESS

NEWS FROM AIRFIX

THE BIGGEST NEWS from Airfix is the announcement of a brand new range of OO and HO scale train sets, locomotives and rolling stock. No prices are yet known, but they are expected to be competitive, and the models should be in the shops later this year.

The first sets are as follows: British steam goods set, comprising a Prairie tank 2-6-2T, class 6100, in British Rail black, with 25-ton Lowmac machine wagon, 12-ton ventilated goods van and 20-ton brake van; British steam passenger set, comprising the same Prairie tank loco but in GWR colours, with two GWR 60-foot Suburban Brake coaches; British diesel goods set, comprising an AIA-AIA Brush-type 2 diesel electric loco in BR green with the same wagons as in the steam goods set; British diesel passenger train set, with the same diesel electric loco in BR blue and two Inter-City coaches. All these are in OO scale and come complete with track lengths and 12 volt battery controllers.

In addition, for the kiddies there is a 'Dr X Adventure Set' comprising the BR blue diesel, two wagons, a half-barrier type level crossing, and a tunnel with opening side to reveal 'Dr X's' secret hideout complete with spring-powered guided missile, a rocket transfer van and a breakdown truck.

Finally, in HO scale is a 'Wild West Adventure Set' comprising a 'Jupiter' 4-4-0 Central Pacific loco with a passenger car and a baggage car which 'explodes' to reveal a safe and strong box inside, plus a gantry, log cabin and six 'bandit' figures.

In addition to the sets all the locos and stock will be available as separate items, with the addition of an HO scale Union Pacific 4-4-0 loco, as will short, standard and double straight track lengths, half, standard and double curves, right and left-hand points, a universal crossing and length of isolating track.

The biggest news for aircraft modellers in the new Airfix catalogue is the sixth kit in the 1:24 scale series, which is of the Ju87B Stuka. This model should be available in the autumn. In 1:72 scale World War 2 enthusiasts will be delighted to see that Airfix have scaled down their 1:24 scale Bf 109E, which should certainly be a good kit. Other new items include the F-14 Tomcat which was featured on the cover of our February issue, an F111E to replace the now ageing F111A, Westland Lynx and a Fouga Magister, and undoubtedly there will be further surprises as the year progresses.

Airfix's 1976 programme promises a boom year for military modellers. The biggest surprise is that Airfix are taking over the Max range of 1:35 scale military vehicles, six of which are featured in the catalogue: the White M3A1 scout car, M6 anti-tank gun on Dodge 4x4 chassis, 155 mm howitzer, Dodge command car, Dodge

weapons carrier and Dodge 1½-ton personnel carrier. In 1:32 scale the next two AFV releases to follow the Crusader will be of the Lee and Grant medium tanks, while in 1:76 a welcome addition is a 40 mm Bofors gun and Morris tractor. An interesting diorama/wargames kit, also in 1:76 scale, is a forward command post comprising a ruined cottage, corrugated iron shed, section of road, ammunition boxes, sandbags, signposts, barbed wire supports, pickaxes, shovels, oil drums and a British despatch rider and radio operator. Also in 1:76 are four new World War 2 figure sets — German alpine troops, German paratroops, Luftwaffe personnel and Gurkhas. The paratroops and alpine troops are also featured in 1:32 scale, and presumably the Gurkhas will follow suit.

In the 54 mm Collectors Series of military figures a welcome addition will be a British Life Guard of 1815, while an original and colourful figure of a Bengal Lancer is also featured in the catalogue.

Other models — well, there's Queen Victoria in the 'famous women of history' series, a pair of life-size bullfinches to head a new series of wildlife models, and a giant-sized scorpion and praying mantis, complete with devastated city diorama bases, in a new 'science fiction' series. A more welcome model in this genre is a 'Space 1999' Eagle module which should prove popular with devotees of this excellent TV series.

Airfix books feature prominently in this year's catalogue, and future titles for release this year include the first of a new series of books on Classic AFVs, *Crusader*, as well as Airfix Magazine Guides on the French Foreign Legion, American Fighters of World War 2, World War 2 Wargaming, Modelling Jet Fighters, British Tanks of World War 2, USAAF Camouflage and Markings, Model Soldiers and 8th Army in the Desert. A Classic Aircraft book on the Stuka is also under preparation.

All in all a good modelling year with Airfix!



Appetisers! Above left Box artwork for the new 1:32 scale Grant tank. Above The 1:24 scale Ju 87B Stuka. Left The superb Bengal Lancer in 54 mm scale. Below One of the ex-Max range, M6 37 mm anti-tank gun on Dodge 4x4 in 1:35 scale.



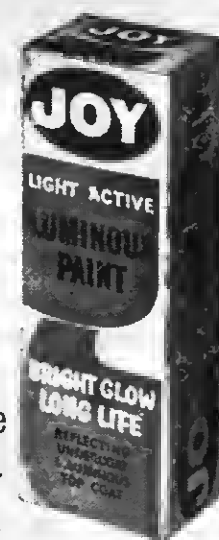
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Air, land and sea

compiled by the editor

FH70 gun tower

TWO NEW vehicles designed specifically to complement the new FH70 gun featured in the January issue will shortly be entering service with the British army.

Designed and built by Fodens Ltd of Sandbach, Cheshire, the new FH70 gun tractor and gun limber are both 6 x 6 medium mobility vehicles powered by Rolls-Royce Eagle Mk III turbocharged diesel engines which give a maximum road speed of 68mph. Both vehicles feature nine-speed gearboxes and all-steel cabs which can be tilted forward to give easy access to the engine, and both are air transportable by Belfast or Hercules aircraft.

The FH70 tractor carries a fully heated and ventilated cabin behind the cab for the gun's crew of eight men. Spare wheels for the gun can also be mounted on the top of this. Behind the cabin is space for four NATO ammunition pallets, while a crane is mounted on the vehicle for loading and unloading. A spare wheel and stowage box for gun equipment is carried at the rear of the vehicle.

The FH70 limber is basically the same vehicle, including the crane, but carries eight pallets and lacks the crew cabin.

The FH70 has been designed to fire various types of ammunition, all of which can be carried on the tractor and limber. These include a 43.5kg HE shell, smoke projectile, illuminating projectile producing a million



Above FH70 ammunition being unloaded by means of the Foden gun tower's crane. Foot of page FH70 being prepared for firing with gun tower in background. Note ammunition pallets and crew cabin behind the cab (photos courtesy Fodens).

candle power for about a minute, a fin-stabilised extended range shell which will have a range of about 30,000m instead of the normal shell's 24,000, and a direct anti-tank projectile which is still under development.

Air shows

FIRST OF THE major air events of 1976 will be the German Aerospace Show, to be held at Langenhagen Airport, Hanover, from May 1 to 9. 1976 also sees the Farnborough

Air Tattoo once again in September, and the Greenham Common Tattoo on July 31 and August 1 (see page 484). The Royal Swedish Air Force celebrates its 60th anniversary this year, and a number of displays are rumoured. For the long distance traveller, of course, there is also the Japanese International Aerospace Show, planned for October or November at Iruma Air Base, 28 miles outside Tokyo.

Valley Hawks

4 FTS BASED at Valley, Anglesey, is scheduled to start receiving the HS Hawk towards the end of the year. The type will replace both Gnat and Hunter currently in use with the unit. At present 4 FTS is divided into three squadrons — one and two with Gnat T 1s and three with Hunter F 6s and T 7s. Valley claims to be the busiest military airfield in Britain. In addition to 4 FTS operations, the rotary division of the CFS normally based at Tern Hill has a detachment here, as does 22 Squadron with its rescue Whirlwinds. Valley regularly plays host to first line fighter squadrons, when they are using the target facilities of RAE Llanbedr and the various live firing areas found in this region.

Alconbury Tigers

THE F-5E TIGER Squadron which is expected to arrive at its new base of Alconbury, in April, is expected to be the 527 TFS (Tactical Fighter Training Squadron). The aircraft will be airlifted in a dismantled state across the Atlantic.

Of the resident RF-4C Phantom unit, the 10 TRW, only the 1 TRS will remain. The 32 TRS returned to America during January closely followed by the 30 TRS. This move effectively reduces the USAF's reconnaissance units by almost half, the other tactical reconnaissance squadrons coming from the 26 TRW based at Zweibrücken and numbered 17 TRS and 38 TRS.

Continued on page 446



AIRFIX NEW MODELS FILE

AFRIKA KORPS NEW MULTI-POSE KIT

In 1941 the German High Command considered the strategic possibilities of conquering Egypt and the Suez Canal. In February, the 5th Light Division containing elements from the 3rd Panzer Division were despatched to Tripoli and renamed the 21st Panzer Division. In April they were joined by the 15th Panzer Division.

Together they formed the Deutsche Afrika Korps subsequently known as the Afrika Korps under the command of General Rommel, who was promoted in September 1941 to the rank of Field Marshal.

In 1942 Rommel lost at El Alamein and finally on May 13, 1943 the African campaign ended in victory for the British Eighth Army (the Desert Rats).

The Airfix Afrika Korps come as a multi-pose kit — a totally new concept in model soldier kit building. Each box contains over 100 polystyrene parts which are interchangeable so you can cement them together in a variety of positions.



Afrika Korps 1:32 Scale.
New to the world's biggest range
of construction kits.

DESTROYED BY RATS.





Above In use with 30TRS at Alconbury until recently was RF-4C 60413 (S. G. Richards). **Left** HMS Bulwark photographed at Portsmouth last August (Paul Beaver). **Below left** Lovely shot of the nuclear-powered Fleet submarine Courageous leaving Faslane (Wren Annette Evans, HMS Neptune). **Bottom** Model of the new Exocet Amazon. Note new launchers and sensors (Vosper Thornycroft via Paul Beaver).

Continued from page 444

Exocet Amazons

FIVE OF THE Royal Navy's Type 21 Frigates of the Amazon Class will be fitted with the Exocet surface-to-surface missile launchers carried forward of the bridge. The fitting of the two twin launchers means the Corvus rocket launchers will be positioned amidships and two new Active Early Warning domes are carried just forward of the funnel. Note also the two triple Mk 32 ASW torpedoes to be fitted abeam of the hangar.

Reprieve for Bulwark

ONE OF THE Royal Navy's two Commando carriers, HMS *Bulwark* (R08), which was due to be paid off this spring, has been given a reprieve. She will now be laid up at Portsmouth (?) in Care and Maintenance for an indefinite period. She may well be used to supplement HMS *Hermes* (R12), Britain's other LPH (Landing Platform Helicopter — the NATO abbreviation for Commando-type carriers), when *Hermes* is converted into an anti-submarine carrier sometime in the near future. An interesting question is whether *Hermes* or *Bulwark* will receive the new Sea King HAS 2 and/or the Sea Harrier? □

AIRFIX NEW MODELS FILE

BRITISH EIGHTH ARMY NEW MULTI-POSE KIT

The Desert Rats, or the British Eighth Army as they were more correctly known, were established in September 1941. They were organised by their Commander, General Sir Alan Cunningham, into the XIII Corps and XXX Corps — the latter incorporating the famous 7th Armoured Division.

The British Eighth Army was formed after some of the most fierce battles of the Second World War along the North African coast.

For three years German and Italian forces fought the British and Commonwealth armies to gain access to the vital Suez Canal.

In November 1941 Operation Crusader relieved the beleaguered fortress of Tobruk. A counter-attack by Rommel early in 1942 forced the allied armies back to El Alamein. However, following a major battle, the Eighth Army forced the Germans to retreat and finally on May 13, 1943 on the Cap Bon Peninsula the African campaign ended.

A total of 43 British Army Regiments were represented in the Eighth Army and were divided into four armoured divisions and four infantry divisions.

The Airfix Eighth Army come as a multi pose kit —

a totally new concept in model soldier kit building. Each box contains over 100 polystyrene parts which are interchangeable so you can cement them together in a variety of positions. They wear the standard issue khaki drill shirt and shorts. And there's a variety of caps, boots, helmets, and equipment.

For up-to-date news and details of Airfix models get the Airfix magazine, price 25p.

Also available are a set of detailed Airfix Books. These give all the background information to such models as the HMS Victory, Cutty Sark, Mayflower, Spitfire, Messerschmitt Bf109, P.51 Mustang and Hawker Hurricane.



British Eighth Army 1:32 Scale.
New to the world's biggest range
of construction kits.

THE DESERT RATS THAT WERE A PLAGUE ON ROMMEL.



British Army uniforms

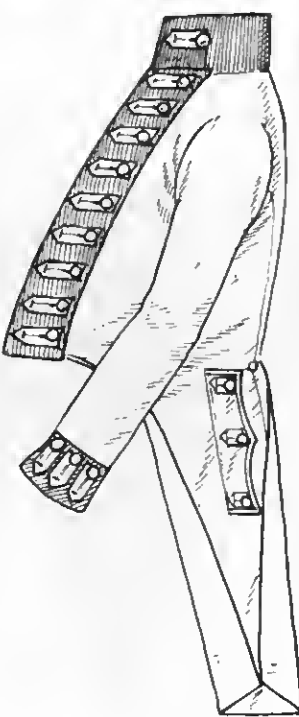
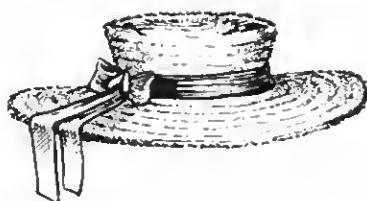
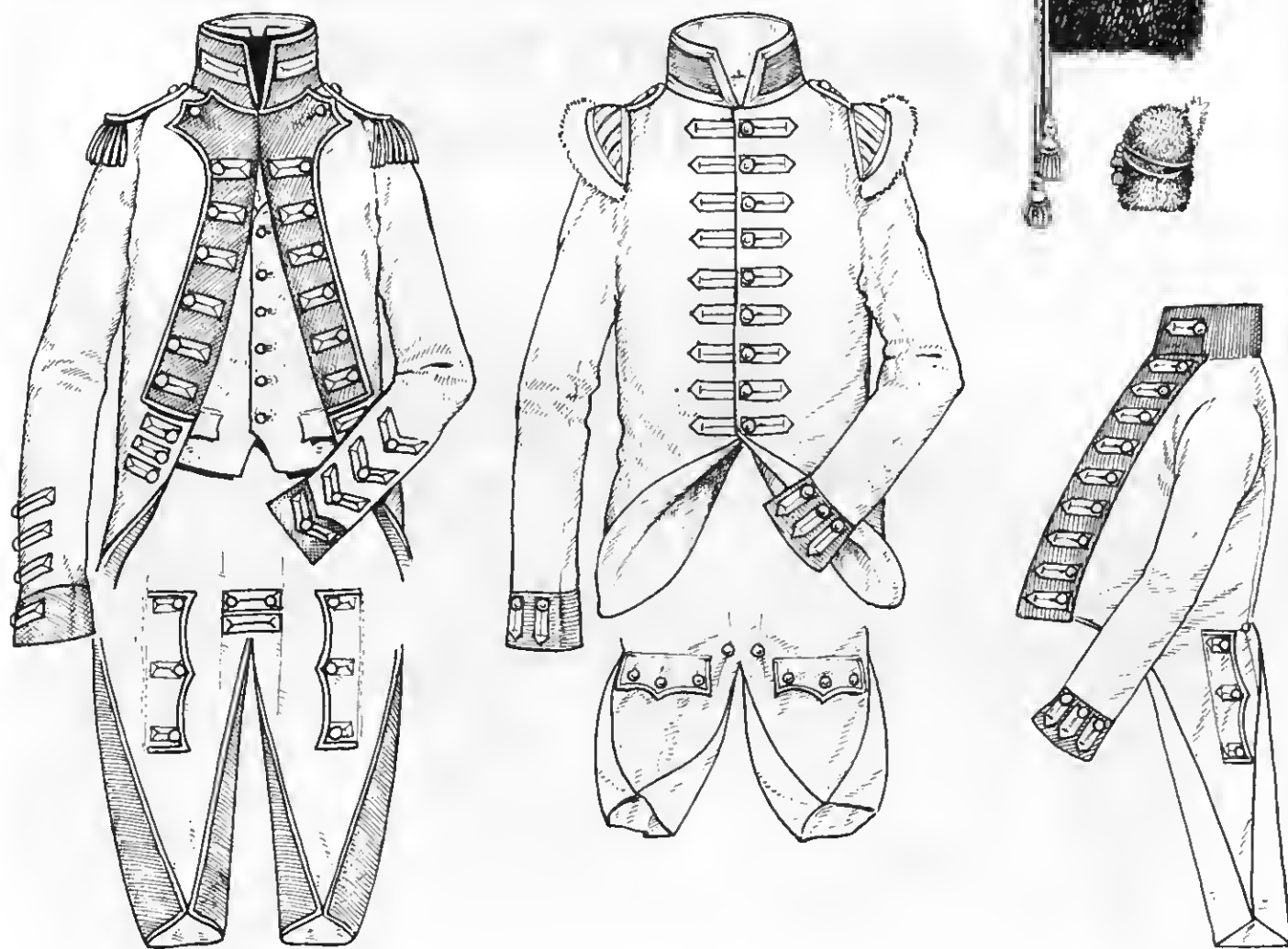
1660-1900

The Regiment de Roll by Bryan Fosten

ON NOVEMBER 23 1794 Louis-Robert-François-Joseph, Baron de Roll d'Emenholz, de Soleure, raised a regiment of Swiss infantry for service in the British Army. De Roll already had a fine record as an officer in the Royal French Army prior to the Revolution. A former captain in the Swiss Guard, he became Maréchal de Camp and Aide to the Duke of Artois and later Colonel-Général of the Swiss. This was the first Swiss corps to be taken into the British service and one of the last of the foreign corps to be disbanded after the Napoleonic Wars and deserves our attention.

The first Lieutenant Colonel of the regiment was to be de Dürler, a one time captain of the old Swiss Guard, and the major's post was accepted by the Chevalier de Dieffenthaler. The regimental staff comprised a captain aide-major, a quartermaster to act as paymaster, an adjutant, a chaplain, a surgeon and two surgeon's aides. Each battalion was to have ten companies, one of which was to be an élite grenadier company and another the light infantry company. The colonel, in true Bourbon tradition, was considered the proprietor and his company was com-

Below left The early 'habit' in scarlet cloth with Royal blue facings. **Centre** The British jacket that was worn during the Egyptian Campaign of 1801. **Right** The caps and straw hat as described in the text. **Below right** The 1801 officers' coat, of British Pattern.



manded by a Captain-Lieutenant. Each company had two lieutenants and an ensign besides the captain.

Recruiting was slow at first because of the competition exerted by Spain and Austria in the Catholic cantons, but by the end of May 1795 the regiment was 1,698 strong, although sickness, wastage and desertion reduced it to 1,200.

A dépôt for the regiment was established in Switzerland, at Waldshut, and men were recruited from the Cantons but also from Germany and Alsace.

In December 1795 the regiment finally left Constance 1,300 strong and marched across Austria, through the Tyrol into North Italy. In January 1796 de Dürler had the honour of parading his regiment before Louis XVIII at Verona. During its march south the regiment distinguished itself fighting against rebel hordes until they finally embarked from Leghorn for Corsica. Here they lost officers and men in a shipwreck and in October 1796 they went to Elba and from there, in April 1797, to Portugal where they disembarked with a much reduced establishment of 48 officers and 873 men. Here they joined the auxiliary corps under General Sir Charles Stuart.

Stuart was not very impressed with his first sight of the regiment and indeed is quoted as remarking 'they are a disgrace to the British name . . . !' However, de Roll must have worked very hard on his regiment for within one month he reported they were much improved, especially by new uniforms and equipment. However, the regiment's bad luck continued and soon after they suffered an epidemic of some local fever which reduced their strength to a meagre 600. De Roll was unable to get more recruits from Switzerland and pleaded to be allowed to recruit more from Germany but had no success and by June 1798 they had reduced so dramatically that the second battalion was dissolved and the remaining officers and men drafted into the first. A fresh capitulation was signed about this time and this committed the regiment to serving in the British service for ten years and anywhere. All who saw the regiment at this time were much impressed with its appearance and discipline.

In 1799 Stuart sent the regiment to Minorca, it was so reduced by now that he hoped to use its fine material to form a new regiment to be called 'Stuart's Minorcans' composed of Swiss who had been in the service of Spain, but this never took place and De Roll carefully nurtured his corps until by September 1799 he had expanded it again. Now he had 32 officers, 53 sergeants, 53 corporals, 22 drummers and 550 men.

Abercromby was so impressed with the regiment he selected it to form the spearhead of Stuart's Foreign Brigade for his projected expedition to Egypt. By October 24 1800 they were in Gibraltar, training in Stuart's Brigade alongside Dillon's Regiment and the newly formed Stuart's Minorca Regiment. On March 1 1801 they finally arrived off the coast of Africa and were disembarked at Aboukir. They were not engaged on that day but proved their worth in the fighting on the 13th when the Foreign Brigade sharply repulsed the French right near the Alexandria Canal.

The regiment had landed with two field officers, seven captains, 14 lieutenants and

ensigns, five officers of the staff, 52 sergeants, 21 drummers and 528 men under arms, plus 32 sick. In the first fighting they lost eight men and had three officers (Lieutenant Colonel De Dürler, Major de Sonnenberg and Lieutenant de Bachmann) wounded. 37 of the men were also wounded in this fight.

On March 21 they had an opportunity of really distinguishing themselves at the action at Canopia. They fought bravely and firmly repulsed heavy French cavalry charges lead by Rolze who had managed to drive a wedge between the Foot Guards and John Moore's reserve on the nearby sand hills. It was a day of glory for the Swiss although they lost three officers and 19 men and had Adjutant de la Ville-sur-Ilion and Lieutenant Metzger wounded, together with a further 49 of the men. Moore recognised the good conduct and valuable service of the Swiss unit.

During the subsequent expedition against Cairo, de Roll's were left to besiege and blockade Alexandria, but when Hutchinson returned they saw further action and the town was reduced.

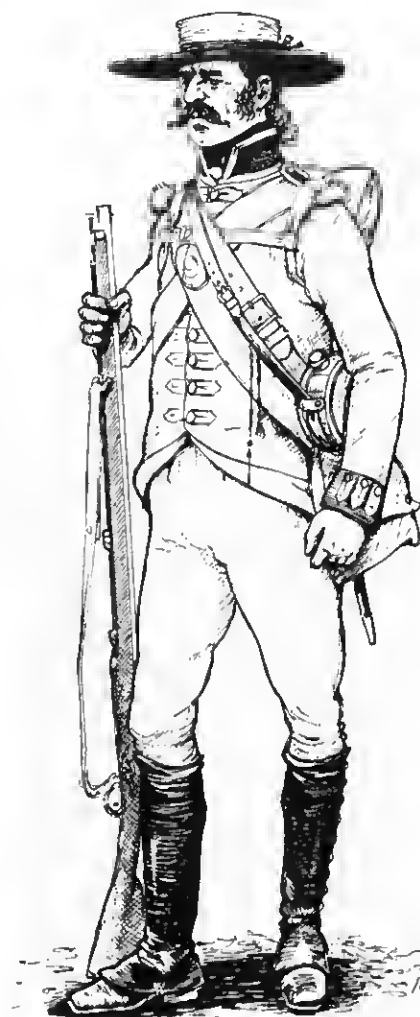
By April 25 1802 the regiment comprised the Lieutenant Colonel, the major, five captains, four lieutenants, five ensigns and four staff officers, 43 sergeants, 21 drummers and 421 men under arms. Seven men were detached and there were 99 sick, which gives some idea of the great wastage due to dysentery and ophthalmia during this campaign.

On August 31 1802 Menou capitulated and the regimental return for that day states that de Roll fielded 383 men alongside his comrades in the other foreign regiments. For their services in the Egyptian campaign the officers received the gold Crescent of Turkey and the regiment the honour of wearing the Sphinx on its appointments. Lieutenant Colonel de Dürler received a richly ornamented Mameluke sabre from Menou as thanks for his acting as interpreter during the capitulation proceedings.

The regiment was one of the last to leave Egypt, arriving on June 21 1803 at Gibraltar. Shortly after its strength was recorded as 843 men. De Roll arrived in Egypt almost entirely Swiss, the drafts it received on campaign had been a motley collection of men and included many Germans.

Uniform

The first uniform of de Roll's was a 'round hat' of black felt with a black bearskin crest. The brim of the hat curled up on each side and was decorated with a small white loop of lace in the form of a 'V'. The hat had a scarlet turban bound with white metal chain and a scarlet cut feather plume with a white tip worn on the left side, over a black cockade with a white loop and button (this was fastened just above the turban). The coat was the French 'habit' and was scarlet with a royal blue collar, lapels, V-shaped cuffs and royal blue turnbacks. The collar, lapels and cuffs and turnbacks were piped white. Each collar front had a white square ended white lace loop and each lapel had six similar loops. There were three further loops below the right lapel, and each sleeve was decorated with four square-ended white lace loops but in this case arranged as 'V's, the lower of



A private of the Battalion Company in Egypt in 1801.

which was on the blue cuff. The four sleeve loops had a button in the centre of the V and the three below the right lapel had buttons on the edge of the coat (note that these three buttons fastened to three buttonholes with similar white loop under the left lapel when the coat was worn buttoned over, although this seldom occurred). On each shoulder a royal blue shoulder strap edged white and with a thin white cord fringe which was later altered to a red wing with white lace bars and a fluffed woollen 'roll'. Buttons were white metal and without a device at this period. The pockets were set vertically in the skirts and piped with white and had three buttons, it is believed they had lace loops around the holes. The waistcoat and breeches were white and they wore black calf length gaiters. The grenadier company wore the same uniform except for the headdress which was a tall black bearskin cap without a plate. This cap had a white plume on the left side and a white cord attached to the right from which long cords descended to the shoulder with two tassels. This is how the figure is drawn in the original plate from which this information is derived. It is likely, however, that the cord normally wound round the cap with the tassels tied on the right side but with little or no pendant cord. The equipment was crossed white leather belts with black pouch and a bayonet and French sabre-



brigue. The muskets were British.

The drummers wore the same uniform as the men but had five bars of horizontal white lace across each sleeve between vertical seam lace. The lace had a scarlet zig-zag. This pattern lace covered all the other seams of the coat and was also placed along the edges of the pockets. The drum rims were striped diagonally red and white. The shell was painted royal blue (device not known). The officer wore a three-cornered hat of the late 18th Century pattern with gold tassels and cords. It had a black silk cockade with a gold loop and button. His plume was red with a white tip. The coat was the same as the men but with rich silver lace and silver lace epaulettes. He wore a crimson sash around the waist under the coat, a white waistcoat, close-fitting white breeches and Hessian boots edged with silver. The officers carried British infantry officers' straight swords with gilded shell hilts and white grips. Gold and crimson knots.

In Egypt they were dressed as follows: British service red cloth jackets with light blue collars and cuffs edged with white lace with a blue line. The cuffs had two or three white pointed loops. The single-breasted coat was closed down the front with nine buttons and decorated with white point-ended loops, the design in the lace being a blue stripe (one authority gives a red stripe). Shoulder straps were blue edged with white lace with a blue stripe and with a white woollen ornament at the sleeve ends. Plain white metal buttons. White breeches and black knee-length gaiters were worn (one authority gives calf-length gaiters). British standard equipment with a brass oval breast plate. Brown painted canvas knapsacks on white straps. Note that it was not until the end of the Egyptian campaign that De Roll's took into use the tassel-ended loops on their uniforms which followed the style of the old Swiss Guard.

The officers wore scarlet double-breasted coats with light blue facings, and silver lace and buttons in the British style and had silver epaulettes and gorgets. They wore crimson net sashes and white breeches with black gaiters or knee-length boots.

In correspondence with the late C. C. P. Lawson, who was the doyen of historian-collectors of information on the British Army, I learnt that Vicomte Grouvel, the foremost French authority on foreign regiments in the British Army of this period, was of the opinion that both the officers and men of De Roll's took into use a wide-brimmed straw 'round hat' shortly after the landings and wore these until they returned to Malta and then Gibraltar. Grouvel said that they found that the normal British early stove-pipe caps were totally unsuited to the climate and the men could not wear them for long. They took them off and soon suffered from ophthalmia and heat stroke hence the practicality of using wide brimmed hats to shade the eyes and neck.

Sources

Vicomte Grouvel *Histoire des Troupes et Régiments de l'Emigration Française*; C. T. Atkinson *Foreign Regiments in the British Army* (Journal of the Society of Army Historical Research); and C. C. P. Lawson: Correspondence.

Michael J. F. Bowyer

Army-air colours 1937-45

Part 7 — Enter the Mustang

FOR A LITTLE over a year Army Co-operation Command had been operating Tomahawks in a tactical fighter/recce role. It was never satisfied with the aircraft whose power plant gave constant trouble. By March 1942 serviceability was so poor that the Tomahawk was taken off operations. It was indeed fortunate that a fine replacement type was at hand.

When the British Purchasing Commission commenced buying American aircraft it could only contract for a rather poor assortment of machines apart from the Lockheed Hudson and North American Harvard. The sale of the latter to Britain was a fillip to its makers, but once the order was completed the firm had little work in hand. One answer was to establish a production line for the Curtiss P-40, but it would have been a major task. If this was done, argued North American, how much better to build a fighter type of their own.

Both the Curtiss Mohawk and Tomahawk were inferior to RAF and Luftwaffe fighters, but they might be useful stop-gaps overseas. Therefore the British bought the Tomahawk whilst hoping for something better.

Quite suddenly North American offered to produce just such a machine suitable for European operations. When, in April 1940, they were asked for details, the firm's design team worked at frantic speed. Within hours they produced the layout of a highly streamlined machine. The British were very impressed, and asked North American to proceed with the work on the understanding that the aircraft — now the NA 73 — would be ready in prototype by the autumn. Backing a hunch, they ordered 320 examples in May 1940.

One unfortunate feature remained, the engine would still have to be the un-super-

charged Allison. The clean design cut drag to a minimum, but nothing could cure the engine's height limitations. By slinging the radiator in a shallow dish beneath the fuselage aft of the main-plane one bad feature of the Tomahawk was removed. More important, the thin wing was of the radical laminar flow type where maximum thickness was well aft across the chord.

Whilst the Battle of Britain raged North American worked frantically to meet their deadline. A matter of days before the unpainted prototype emerged the power plant had still to be delivered, but on October 26 1940 the NA 73 made its first flight. Performance was immediately seen to be very good then, on its fifth flight, the aircraft had engine trouble. It was wrecked, but not before the British order stood at 620 aircraft.

In April 1941 the first production example for the RAF, AG345, was flown. Little was needed to make it operationally fit. During trials in the USA, and whilst it remained unpainted, AG345 reached a speed of 394 mph at 15,000 feet, but operational gear increasing loaded weight had yet to be added. On hearing this news the British were delighted and the USAAC astonished — they had yet to show much interest. But above 15,000 feet performance declined rapidly, although this was expected. Thought centred on using the type for low and medium level operations. AG345 remained in America until May 1942 when it was brought to Britain on the SS *Bourneville*.

Production built up rapidly. During September 1941 examples of the machine, by now called Mustang 1, were being rapidly packed into cases for shipment to Britain,

Continued on page 452

The superb lines of the Mustang 1 are well apparent here (IWM).



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AG345, the first RAF Mustang in Dark Green-Dark Earth-Sky finish with a Dark Earth spinner. Note the 40-inch Type A underwing roundel, a usual feature of early Mustangs, and the yellow and white bands in the fuselage roundel slightly larger than normally would have been expected. Close proximity of the roundel to the serial caused a problem when applying unit letters.

Continued from page 450

so much so that by the end of 1941 over 100 had completed the Atlantic crossing. AG346 was the first erected at Speke, came on charge November 15 and was test flown in the Dark Green-Dark Earth-Sky finish with black serials and the unusual Dark Earth spinner common to many early Mustangs, some of which had black spinners. The paints used on these aircraft were of American origin, the upper surface colours tending to be lighter than their British counterparts whereas the under surfaces were a green shade of Sky slightly darker than the usual British mass-produced batches.

Before its arrival the Mustang was earmarked for Army Co-operation Command which, by the turn of the year, was hoping to re-equip its TacR squadrons entirely with Mustangs and wishing to expand its strength to 20 squadrons. Eager to try the Mustang No 26 Squadron at Gatwick was chosen to test AG367 which arrived on strength on January 5 1942 for operational trials. As a result of these, the Air Ministry informed Army Co-operation Command on January 24 1942 that all squadrons should be re-equipped with Mustangs. A supply rate of 40-50 a month was promised beginning in February. A second trials machine, AG519, went to No 2 Squadron on January 28 and a month later No 26 Squadron received two more, AG364 and AG387. The initial order of re-equipment was agreed as Nos 26, 241, 613, 16, 268, 4, 2, 400, 414 and 231 Squadrons. The fates of Nos 225 and 239 Squadrons was at this time uncertain. Both were earmarked for overseas where the Mustang was considered as unsuitable.

If the Mustang was to rapidly take its place in the Command, sufficient trained pilots were essential. Conversion at squadron level was accomplished using surplus Fairey Battles, most squadrons having at least one. Some Battles retained Dark Green-Dark Earth-Yellow training finish whilst others were repainted in the customary Dark Green-Dark Earth-Sky finish of army co-operation aircraft. Such marking variations also existed among the Tiger Moths used by squadrons as 'hack' aircraft. For the most part, though, Mustang pilots would be trained at No 41 OTU where the first Mustangs arrived at the end of February 1942.

To fully assess the type AG357 was sent to A&AEE, and on January 28 1942 AG360 and AG365 joined AFDU Duxford for tactical trials and comparison with enemy aircraft.

Since the Mustang was the most impor-

tant aircraft the Command ever used it is worth looking at it in some detail. It was powered by an Allison V-1710 F3R 12-cylinder V liquid-cooled un-supercharged engine with a rated power of 1,150 hp at 3,000 rpm at 12,000 feet. Automatic boost control limited manifold pressure to 44 inches, so the British removed this gear obtaining vastly improved performance at lower altitudes using over boost. The engines — much superior to those of the Tomahawk — ran very smoothly on low revs which provided an unexpected bonus in the form of low fuel consumption giving a useful endurance of up to four hours. No comparative British fighter could match this.

During firing trials at Duxford butts a wing gun on AG365 jumped its frail mounting and fired through the wing causing the machine to be replaced by AG422. Firing problems had also been encountered by No 26 Squadron with guns becoming loose in wing mountings. Cartridge ejection facilities were also unsuitable, but simple modifications cured both snags. The ST 1A gun sight needed to be replaced by the GM2 fitting which began in all operational aircraft in May.

Especially appreciated was the wide track undercarriage, a useful feature since Mustangs would have to operate from rough airfield surfaces common in the Command.

For a large pilot the cockpit was cramped, but its instrument layout was good. The top of the cockpit and port side panel hinged for entry, but the canopy could not be opened in flight, although there were sliding panels. At all altitudes the cockpit became very hot and the warm air duct was not needed. High cockpit temperatures precluded the suitability of the Mustang 1 for use in hot climates. A bulletproof screen was sited behind the windscreen and the space between led to misting so that when AG505 was delivered to FIU in May 1942 for night fighting tests it was rejected although some night operations were later undertaken after modifications. It was also the reason why AFDU rejected the Mustang as a satellite aircraft to Havocs using Turbinlites.

Self-sealing wing fuel tanks were fitted, but the oil tank immediately ahead of the fireproof bulkhead ahead of the pilot was not protected. VHF radio was standard although a No 19 set had to be fitted for operational work. Another replacement concerned the compass which on some aircraft gave erroneous reading of from 40

to 70 degrees due to electrical interference. Oxygen bottles were badly placed for rapid change. Small though these failings may seem, they needed to be rectified before the squadrons could stand by for operations.

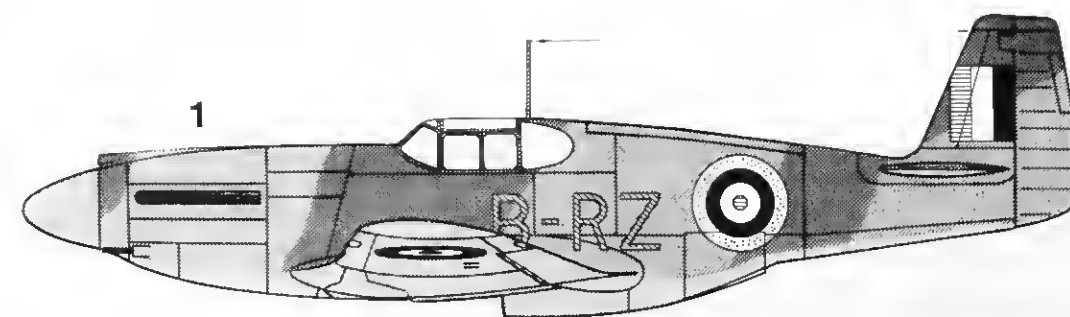
Against this the performance was excellent. The Mustang was faster than the Spitfire V up to 25,000 feet, reaching 375-380 mph TAS at 15,000 feet compared with the Spitfire's 340 mph. Its climb rate was, however, inferior at all heights. The Mustang took an additional minute to reach its operational ceiling of 25,000 feet when compared to the Spitfire V. Indeed, at 25,000 feet its rate of climb was merely 1,000 fpm. Below 25,000 feet the Spitfire could out-turn the Mustang even if the latter had judicious help from its huge flaps.

In areas of good performance the Mustang was pleasant to fly and stable although its take-off run was rather long and landing could result in an overshoot, for the long servo tabs had a profound effect upon controls. In aerobatics its light controls were superior to the Spitfire's, and it was more difficult to effect a high speed stall too. Speed in a dive built up fast, the initial acceleration being very good. Speeds of up to 500 mph were recorded from which recovery was easy in long glides, although a deflector plate lowered in front of the radiator caused severe vibration and upset trim. The long nose restricted the pilot's view, but this was good enough for low level operations although in poor weather the inability to open the hood was a disadvantage.

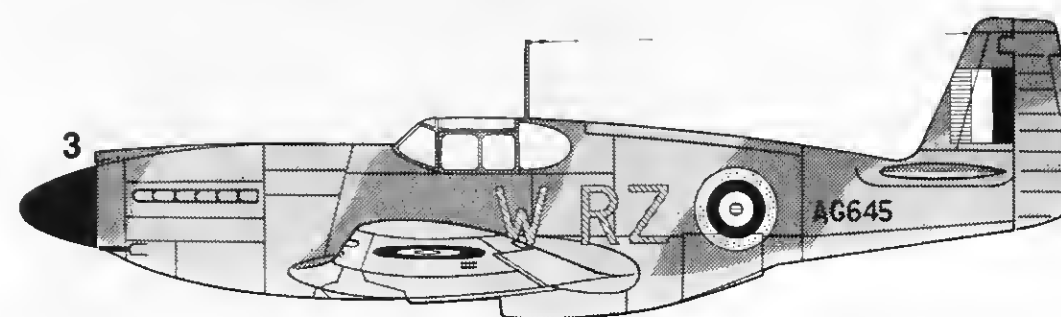
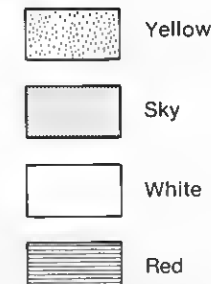
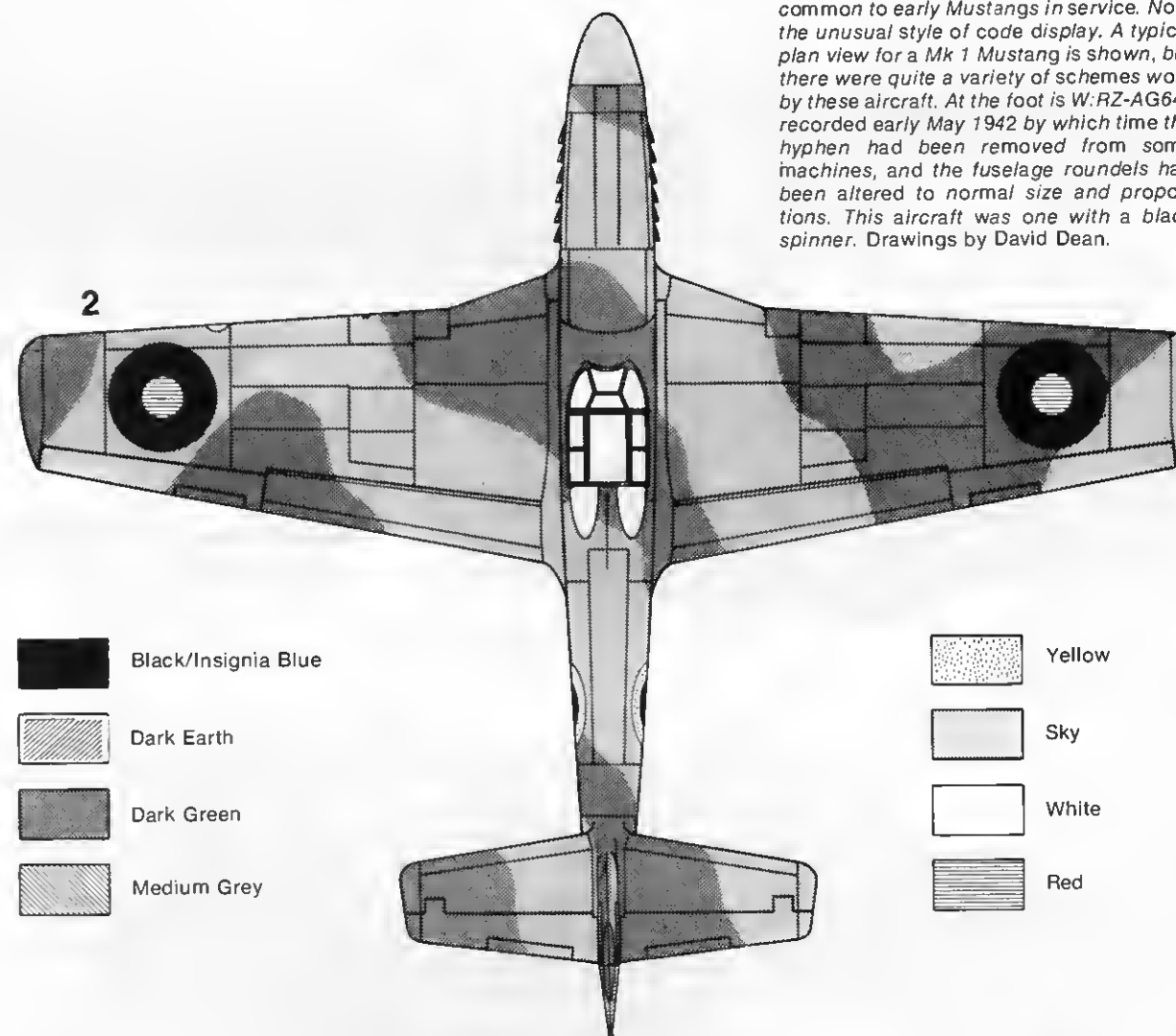
Standard armament comprised two .50 inch and four .30 inch guns in the wings and two .50 inch guns in the fuselage below the engine. The .30 inch wing guns flanked the .50s. Reloading and re-arming took about 11 minutes and the engine warmed from cold start in six minutes, allowing quite fast getaways and turn rounds. When operated from muddy airfields the low-slung radiator easily picked up mud which required washing away under pressure.

Entry into service

Rather than await necessary modifications Army Co-operation Command decided to introduce the aircraft as fast as possible replacing them with fully modified aircraft when these became available. Mustangs began to arrive at Bottisham on March 15 1942 with a second batch flying in on March 23. All were in Dark Green-Dark Earth-Sky finish with Dark Earth or black spinners. No Sky rear fuselage bands were worn, and some like AG-405 had hyphenated serials. These first examples had extra wide white and yellow rings in their Type A1 fuselage roundels. By March 26 there were 14 Mustangs at Bottisham alongside an Airacobra AH651 in Ocean Grey-Dark Green-Medium Grey finish, uncoded and there for trials. Operationally equipped Mustangs of No 26 Squadron were soon in the current day fighter finish like the Airacobra, RM:Z-AG367, the first sent to No 26 Squadron and which had arrived in Britain on December 9 1941 wearing 'RM' ahead of the fuselage roundels on both sides and 'Z' aft since the roundels had been repositioned forward slightly. By late April 26's Mustangs had acquired Sky fuselage bands, Sky spinners and yel-



Depicted are two Mustangs of No 241 Squadron, Bottisham, April-May 1942. At top B-RZ (serial unknown) carries the slightly enlarged and mis-drawn roundel common to early Mustangs in service. Note the unusual style of code display. A typical plan view for a Mk 1 Mustang is shown, but there were quite a variety of schemes worn by these aircraft. At the foot is W:RZ-AG645 recorded early May 1942 by which time the hyphen had been removed from some machines, and the fuselage roundels had been altered to normal size and proportions. This aircraft was one with a black spinner. Drawings by David Dean.





AG366 RM:T joined No 26 Squadron on May 1 1942 serving until February 19 1943. After months in storage it was used in 1945 by No 285 Squadron. It is shown here in Dark Green-Ocean Grey-Medium Grey finish common to 26's aircraft from March 1942 at a time when most Mustangs wore 'green and brown' finish. Note the Sky trim and codes. The fuselage roundel has been placed further forward than on the early aircraft.

423 6.6 - 17.6, 451 14.6 - 13.7, 456 28.6 - crashed 30.10.42, 469 22.5 - 10.7, 478 14.6 - crashed 28.7.42, 488 20.4 - 9.5, 492 19.4 - damaged 19.5.42, 493 20.4 - 17.6, 497 19.4 - 17.6, 522 24.4 - 6.7, 523 20.4 - 25.9, 550 14.6 - crashed 26.5.43, 551 15.6 - crashed 20.6.42, 605 15.6 - crashed 29.10.42, 607 15.6 - 23.12.43, 623 15.6 - crashed 26.5.43, 633 17.6 - crashed 29.10.42, 634 17.6 - 1.10.43, 636 15.6 - 29.10.

No 4 Squadron based at York. Squadron letters TV?

AG361 28.4 - 30.10, 398 28.4 - 6.7, 498 25.4 - 12.8, 499 25.4 - 7.7, 519 28.1 - 8.5.43, 522 24.4 - 6.7, 541 28.6 - 23.1.43, 546 26.6 - crashed 20.3.43, 552 25.4 - 14.5, 553 25.4 - 28.9, 554 24.4 - 12.8, 556 28.4 6.7, 561 28.4 - 6.7, 562 28.6 - 5.10.43, 572 28.4.42 - ?, 576 28.6 - 25.8.43, 579 28.6 - 20.5.43, 590 28.6 - 29.11.43, 664 28.6 - 19.1.44.

No 16 Squadron based at Weston Zoyland. Squadron letters ?

AG384 24.4 - 1.7, 390 24.4 - 1.7, 395 27.6 - 14.1.45, 431 29.6 - 18.10.43, 437 23.4 - 9.7, 442 21.4 - 9.7, 445 23.4 - 1.7, 454 27.6 - 29.10, 457 27.6 - 25.11.43, 467 27.6 - 29.11.42, 491 23.4 - 24.3.43, 494 22.4 - 1.7, 496 24.4 - 6.7, 548 23.6 - 12.4.43, 549 23.6 - ?, 552 23.6 - 11.9.43, 571 4.42 - 9.7, 573 24.4 crashed 24.6.42, 604 29.6 - 2.1.43, 606 30.6 - 9.5.43, 626 20.6 - 16.7.

No 26 Squadron based at Gatwick. Squadron letters RM.

AG358 12.2 - 28.5.42, 364 28.2 - 3.6, 366 1.5 - 19.2, 43, 367 5.1 - 13.10, 387 28.2 - 19.3, 394 12.3 - 14.5, 399 8.5 - 26.7, 420 15.3 - 3.6, 418 19.5 - missing 19.8, 421 12.3 - 10.42, 462 26.5 - 11.1.43, 463 26.5 - missing 19.8.42, 526 29.5 - 31.7, 531 29.5 - 19.10, 532 29.5 - 16.7, 536 20.5 - missing 19.8.42.

Continued on page 456

low outer wing leading edges on their Ocean Grey-Dark Green-Medium Grey camouflage.

At Bottisham some difficulty had arisen when, in late April, 241 Squadron began applying its unit letters, because of the siting of the roundels as on 'RZ-E' and 'RZ-B', etc. At first the letters were Medium Grey but this soon changed to Sky. Serials remained black and probably to obtain more space for individual lettering the hyphens were removed.

All three trials aircraft at Duxford in 1942 had the Dark Green-Dark Earth-Sky finish, but by mid-June AG422 had acquired a Sky rear fuselage band. Such inconsistencies in markings, though, pervaded at all times. As late as July 1942 the 'brown-green' finish remained in use as on UG:B. By then the Mustang was operational, and it is reasonable to assume that all aircraft used operationally had a 'grey-green' finish with Sky codes and trim, etc.

A little known fact is that three Mustang 1s were passed to the USSR in mid-April 1942. What use the Russians made of what must have seemed to them a very advanced aeroplane is not known.

Operations commence

The Ministry of Aircraft Production was unable to produce any Mustangs fully modified for the Army Co-operation role before the end of April 1942. Added to this, overcrowding and atrocious accommodation for personnel at all stations made progress difficult. Nevertheless, early on May 5 1942 a Mustang of 26 Squadron took off from Gatwick on a tac-recon flight which took it to Berck-sur-Mer where the airfield and a goods train were shot up. Inconspicuously the Mustang, which was later to play such a major role in the defeat of Germany, was introduced to action.

The second operation came on May 14 when three pilots of 26 Squadron attacked targets in the Le Touquet-Boulogne area. Among them, was an RDF station of which photos were taken. Such pictures could only be taken to the rear of the aircraft because of the siting of the F24 oblique viewing camera in a port aft of the pilot. One of the Mustangs was damaged by flak when crossing the French coast.

On May 21 another three of No 26 Squadron left West Malling for an afternoon reconce of the Le Touquet area, shooting up machine-gun posts and an RDF station. On the way home an enemy fighter inconclusively engaged a Mustang. An operation on May 28 from Malling took three Mustangs of No 26 to France where they shot

up troops at Merlimont, two locomotives and machine-gun posts before facing coastal flak as they withdrew over Cayeux. These early intrusions confirmed that once the target was chosen all known details of the area must be studied. Every coastal gun position needed to be avoided, for a few hits would bring the aircraft down. It was usual to fly 'dog legs' each of about six minutes at around 275 mph and planned to give maximum target cover and avoidance of gun positions. Each flight measured about 90 miles over enemy territory.

During June few operations were flown, partly because of unsuitable weather since cloud ceiling of 1,500 feet and 7/10 cloud were the usual conditions allowing operations. On June 29, by which time No 239 Squadron was operational, employment of a new kind commenced when AG529 and AG466 of 268 Squadron flew a 'Jim Crow' to the Dutch coast between IJmuiden and Texel. With this, the style of Mustang employment was largely established supplemented later by 'Rhubarbs', 'Intruders' and 'Rangers'.

Mustangs in Service January to 30 June 1942. All dates 1942 unless otherwise stated.

No 2 Squadron based at Sawbridgeworth. Squadron letters XV.

AG392 20.4 - 19.6, 398 19.4 - 28.4, 401 20.4 - 7.6.43, 403 20.4 - 19.5, 404 19.4 - 17.6, 405 6.6 - 5.7,

The placing of the F24 camera to take obliques is shown here (Flight International).



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This famous medium tank, basically the T-34 redesigned to mount an 85mm gun, was used by the elite Guards Armoured Divisions in 1944. It was claimed to be able to penetrate the 100mm frontal armour of the Tiger and Panther.



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This was the main type met by the Allies in Normandy. It first appeared in 1943. A feature of this tank was the one large loading/escape hatch in the turret rear.



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Continued from page 454

No 63 Squadron reformed at Gatwick June 15 1942. Squadron letters ?

AG364 18.6 - 9.8, 369 6 - 7.42, 555 18.6 - 12.7.

No 169 Squadron formed at Twinwood. Squadron letters VI.

AG365 23.6 - 6.8, 433 23.6 - 20.8, 450 23.6 - 1.9, 487 23.6 - 25.10, 489 23.6 - 6.8, 490 23.6 - 6.8, 497 25.6 - 6.8.

No 170 Squadron formed at Weston Zoyland June 15 1942. Squadron letters BN?

AG389 20.6 - 24.9, 423 21.6 - 17.10, 430 24.6 - 6.8, 435 17.6 - 28.9, 441 17.6 - 20.8, 443 13.6 - 6.8, 446 20.6 - 6.8, 455 17.6 - 15.9, 485 15.6 - 10.7, 493 20.6 - 6.8, 500 17.6 - 23.8.

No 225 Squadron based at Thruxton. Squadron letters WU.

AG414 19.5 - crashed 1.10, 419 19.5 - 16.11, 458 19.5 - 29.8, 471 19.5 - 9.11, 475 28.6 - 28.8, 527 19.5 13.11, 530 19.5 - 9.11, 563 17.5 - 31.12, 566 17.5 - 15.2.43, 569 20.5 - 25.5, 570 17.5 - 14.7, 600 17.5 - 17.11.

No 239 Squadron based at Gatwick. Squadron letters HB.

AG364 16.6 - 18.6, 417 12.5 - 3.6, 420 16.6 - 21.11, 439 13.5 - crashed 30.5, 472 12.5 - 14.8, 524 9.5 - 14.8.42, 531 18.5 - 29.5, 533 12.5 - missing 19.8, 539 17.5 - 9.7, 544 10.6 - 22.9.43, 550 9.5 - 14.6, 555 16.6 - 18.6, 557 9.5 - 10.8, 558 15.5 - 27.10, 560 16.5 - 5.10.43, 565 9.5 - 21.7.42, 614 11.6 - crashed 17.4.43.

No 241 Squadron based at Bootisham, to Ayr May 2. Squadron letters RZ.

AG355 23.3 - 15.8, 381 17.3 - 8.6, 389 17.6 - 6.42, 392 19.6 - 24.6, 396 23.3 - 16.6, 400 15.3 - 6.6, 401 24.3 - 8.6, 404 17.6 - 24.6, 405 15.3 - 6.6, 415 24.5 - crashed 14.7, 423 23.3 - 6.6, 17.6 - 20.6, 424 15.3 - 8.6, 425 15.3 - 13.6, 486 23.3 - 6.6, 493 17.6 - 20.6, 497 17.6 - 25.6, 503 26.5 - 6.42, 504 26.5 - crashed 19.7, 506 27.5 - 5.12, 507 26.5 - 3.11, 510 27.5 - 7.11, 511 27.5 - 6.42, 512 27.5 - 5.12, 513 27.5 - 7.11, 516 27.5 - 23.11, 518 27.5 - 28.7, 580 27.5 - 13.9.

No 268 Squadron based at Snailwell. Squadron letters NM.

AG389 6.42, 412 3.6 - 10.12, 413 3.6 - crashed 29.7.42, 416 3.6 - 6.4.43, 427 18.4 - 18.12, 430 18.4 18.6, 435 18.4 - 17.6, 438 18.4 - 6.7, 441 18.4 - 17.6, 446 18.4 - 20.6, 452 3.6 - 16.10, 455 18.4 - 17.6, 460 18.4 - 17.6, 461 3.6 - crashed 29.7, 464 3.6 - 30.12, 465 3.6 - 30.12, 466 3.6 - crashed 7.7, 474 3.6 - 30.12, 484 18.4 - 6.7, 500 18.4 - 17.6, 529 3.6 - 3.8.43, 555 8.5 - 3.6.

No 309 Squadron based at Dunino. Squadron letters AR.

AG400 6.6 - 23.9, 486 6.6 - 23.9.

No 400 Squadron based at Odham. Squadron letters SP.

AG392 24.6 - 6.8, 404 24.6 - 25.4.43, 577 6.7 - 28.9.43, 587 1.7 - 18.10.

No 414 Squadron based at Croydon. Squadron letters RU.

AG364 3.6 - 16.6, 375 7.6 - 19.8, 376 11.6 - 25.3.44, 420 3.6 - 16.6, 444 8.6 - 4.9.43, 459 11.6 - 29.10, 470 11.6 - 23.12, 525 12.6 - 1.4.43, 543 8.6 - 14.10.43, 547 8.6 - 30.3.43, 555 3.6 - 16.6.

No 613 Squadron based at Twinwood. Squadron letters SY.

AG365 15.4 - 23.6, 433 15.4 - 23.6, 443 15.4 - 10.6, 449 15.4 - 4.6, 450 15.4 - 23.6, 485 15.4 - 15.6, 487 15.4 - 23.6, 489 15.4 - 23.6, 490 15.4 - 23.6, 495 15.4 - 16.8, 509 1.6 - crashed 14.10, 517 7.6 - 1.10, 520 1.6 - 8.11, 534 3.6 - crashed 26.8, 564 1.6 - 23.8.43, 586 10.6 - 15.12, 599 11.6 - 24.10.43, 602 7.6 - missing 7.12.42, 603 1.6 - 8.10.

No 41 Operational Training Unit based at Hawarden.

AG362 27.2 - 9.6.43, 363 27.2 - 6.4.43, 368 27.2 - crashed 24.8.44, 378 27.2 - 16.1.44, 379 27.2 - 16.1.44, 380 27.2 - crashed 18.9.44, 381 27.2 - 17.3 & 8.6.42 - 20.8.42, 382 21.2 - 1.3, 383 29.5 - 16.1.44, 385 27.2 - 14.8.43, 387 7.4 - 7, 388 ? - crashed 26.7.42, 391 27.3 - 22.4, 396 16.6 - crashed 17.5.42, 401 8.6 - 9.44, 424 8.6 - 20.4.43, 425 6.7 - 4.44, 432 18.6 - 10.11.44, 449 4.6 - 23.8, 502 14.6 - 28.4.43, 505 4.9 - 20.11, 508 27.6 - 5.1.44, 514 17.6 - 29.6, 515 19.6 - crashed 14.1.43, 555 1.5 - 8.5, 559 4.5 - 10.6.43, 567 19.6 - 27.9.44, 585 27.6 - 28.2.43, 588 27.6 - 12.7, 591 28.6 - 2.7, 593 27.6 - 26.2.44, 597 27.6 - crashed 23.1.44, 598 27.6 - 23.9.42. □

British infantry in North America

More 54 mm figure conversions from Martin Windrow and Gerry Embleton

IN THE CURRENT atmosphere of mild euphoria over America's bicentenary (though exactly which country has most cause to celebrate the event at the moment is open to question!), military modellers are well served with kits and references concerning the War of Independence. The converter should receive with glee the two Airfix kits of American and British infantrymen of this period; not only do they offer considerable possibilities for pleasing variations on their own theme, but they also provide a mass of useful additions to the spares box!

In this article we will run briefly through the main characteristics of British infantry of the Revolutionary War period. Study of reference books will doubtless suggest many other conversion possibilities — we recommend particularly *Uniforms of the American Revolution* by Mollo and McGregor, published by Blandford; *The British Army in North America 1775-83* in Osprey's Men-at-Arms series; and, for those with access to a copy, Chapter 2 and plates 16-26 in our own *Military Dress of North America 1665-1970*, published by Ian Allan.

First, to deal with the British Grenadier kit. In general this is excellent, but there are certain points of detail which need correction and cleaning up. The moulded shoulder wings in the kit (parts 13 and 14) are of the Napoleonic type — large, substantially tufted along the outer edge, and standing proud of the upper arm. The type worn by grenadier companies in the 1770s was much less bulky, lying almost vertical down the upper arm like a little 'cape', and had no tufted fringe. We can see no way to use the kit wings neatly, so drop them gratefully in the spares box before making new ones! A shoulder-strap and a semi-circular wing can be made quite easily from the thin plastic card in the kit. (Note that there should be a wing on each arm, but a shoulder-strap on his left side only — this applies to all companies. Its purpose was to retain the cartridge-box cross-belt in place.) The lower edge of the wing — the straight edge — is trimmed with regimental lace, which also appears in four strips extending vertically from this edge up to the shoulder-seam.

The kit figure wears two cross-belts, one supporting the cartridge box and one the bayonet. He also has a waist-belt visible under his coat, which seems to perform no useful function. This is an error. The practice of wearing two cross-belts did not come into general use until after the Revolutionary War, and stemmed directly from the preference of the troops in that war for removing their waist-belts — supporting the bayonet and, in the case of grenadiers, the sword — and wearing them round the body as if they were a second cross-belt. For an accurate representation



Private, Battalion Company, 64th Foot, by Gerry Embleton (from Osprey's *The British Army in North America 1775-83*).



of the grenadier company, therefore, you should remove the visible waist-belt detail by carving, and add the button which was covered up by it from a shaving of thin sprue or rod. Make the cross-belts as per the kit instructions. To the one which passes over the right shoulder — which is in fact a waist-belt — add a buckle and tongue, either from scrap and card or from a cut-down Historex spare. Make a shallow V-shaped frog for the sword and bayonet by taking a strip of card about 10 mm long by 2 mm wide and folding it in the middle; cement this to the 'cross-belt' on the left ribs. Bayonet and sword are held in a double frog, the bayonet above, just like those of French Napoleonic grenadiers; cement them to the apex of the V-shaped strap. The sword, incidentally, is provided with a straight blade — this should be slightly curved into a 'hanger' shape.

The legs of the Grenadier kit are moulded with buttoned gaiters reaching to just below the kneecap. These are puzzling — no doubt we invite a flood of letters from readers citing authentic examples, but suffice it to say that we are unaware of a contemporary source for gaiters of this length in this period. Regulation winter gaiters of black linen with black buttons, black garters, and

small metal garter-buckles, extended to above the knee; in summer the short calf-length type depicted in the Airfix American Soldier 1775 kit were worn over the stockings. For our grenadier figure we used the former type, from a Napoleonic French figure. (A point of detail, purely optional; rather than using the legs from the Airfix Imperial Guard Grenadier, we used the slightly longer legs from a suitable Historex kit, 'faired in' at the waistline with putty. This achieves the rather pleasing effect of the grenadier being noticeably taller than his battalion and light company comrades — as was often the case.) We also gave his cartridge box a larger, scooped flap from card — this large 'overhang' is most noticeable in surviving boxes and contemporary portraits, and was deliberately designed to weight the flap and prevent the cartridges bouncing out when the soldier was running.

Battalion company private

The uniform of the mass of battalion

Left and right Airfix grenadier 'demoted' to centre company. Note canvas pack and harness, and leather gaiter tops. Below Airfix grenadier, with new swordbelt slung round body and a 'lift' from Historex legs, partially completed. Note curved hanger.



company men — 'hat men' — can be suggested without much trouble from a combination of bits from Grenadier and American Soldier 1775 kits. First, the head. Use the one from the American Soldier kit; purists may wish to trim off the rather tight queue of hair and make from putty or scrap plastic a rather larger, looser club of hair. Alternatively, the hair was sometimes pig-tailed and tucked up under the back of the hat, rather like that of the grenadiers. The grenadier's coat and legs can be used straight from the kit, discarding the shoulder wings. A single shoulder-strap can be made from card for the left shoulder. A noticeable feature of the gaiters of the period, sanctioned in the 1768 Clothing Warrant, was the use of small semi-circular black leather knee-guards in place of the top part of the linen gaiter. These flaps were stiff, end stood out at the top from the line of the leg, like the top of stiff boots. Note this effect in our half-completed 'hat man' conversion illustrated here; flap and garter were made from thin plastic card. These leather-topped gaiters were very common.

For our 'hat man' we left the waist-belt in place, adding the bayonet to the thigh just butting against the edge of the coat as if



officer just by sticking a sabre in his hand, or a flag for that matter. For a battalion company officer, the basic steps would be as follows. Use the Grenadier kit torso, the kit legs with leather flaps added to the gaiters at the knees, and arms to fit your chosen animation. Give him the sword and scabbard from the American Soldier 1775 kit, slung in a frog from a single crossbelt running across his right shoulder. Cover his waistbelt with putty, and add more putty on the left thigh, to suggest the crimson sash with two hanging, fringed ends worn by officers. Add a gorget to the throat, using a Historex spare or making one from card. Add an epaulette to the right shoulder only. This would be of flatter and less substantial shape than the Napoleonic ones — check the references quoted before starting to carve up your Imperial Guard Grenadier epaulette. Remember that officers' coat and hat face was in regimental 'metal' colour — silver or gold. A battalion company sergeant is easy to make; although the spontoon provided in the kit is nothing like a sergeant's halberd, NCOs often carried ordinary musket equipment on campaign. Make a battalion private, as described, but with the following differences. A crimson sash with a central

Left Light Company private in course of construction. Note short gaiters from Continental soldier kit, cap in process of construction from card and putty, and accessories from the spares box. Filling is visible under cut-away coat tails in rear view. **Right** Gerry Embleton's painting of a Corporal, Grenadier Company, 47th Foot, as illustrated in the Osprey book *The British Army in North America 1775-83*.

the V-frog was hidden under it. The right-shoulder cross-belt was omitted, as was the grenadier's match-case from the left-shoulder one. We rung the changes by leaving off the round wooden canteen, and instead giving him the rectangular, kidney-section tin canteen more proper for this period. This files down very simply from an 8th Army canteen.

Light infantry private

This is a fairly major conversion, and we strongly suggest that you get full references in front of you before trying it — there is no space here to cover it in great detail, and there are many possible variations. The basic facts are these; that light companies wore a dramatically cut-down uniform with a cap instead of a hat, a cap usually made from cocked hats but sometimes purpose-manufactured from felt or leather. Our half-completed model shows the basic steps in the conversion fairly clearly. The cap is represented by a rough 'skull' of putty closely following the shape of the head, with a vertical flap at the front, rather like the peak of a baseball cap pushed upwards. Sometimes they had a crest, like a Romanesque helmet, with a cow's-tail plume hanging from it; sometimes a bunch of feathers, fur, or tufted hair was worn instead. The flaps bore various badges, and the skulls sometimes had lines of tape or light chain, like that worn on cavalry headgear, running horizontally round them. These are all simple to paint or simulate — check your references and pick

your favourite. For this conversion you need a complete head to work on, so use one from the 8th Army or Afrika Korps kits.

The coats of light troops were invariably cut down into jackets at roughly crotch level. A little, narrow, vertical triangle of the outer turnbacks often remained, sewn down into place; but the inner turnbacks, ie those on each side of the centre rear vent, disappeared, so that the vent became much less marked. Saw your coat tails off, and then carve and file the centre turnbacks flat. The arms should have small wings, exactly as the grenadier company. Use legs with short summer gaiters over stockings, as in the American Soldier 1775 kit; the removal of the rear coat tails may mean you have to do a bit of filling and filing in the buttock area of the legs to fill unsightly gaps!

For equipment, you have a choice of several styles. The light troops seem to have been among the first to convert old waistbelts into actual right-shoulder cross-belts. We gave our model a small cartridge box (filed down from the kit item) centrally on his waist-belt; a bullet-pouch and powder-horn, from the 95th Rifleman kit, slung on straps on his right side; and a cross-belt supporting his bayonet and a hatchet on the left side. Hair was usually clubbed.

Officers and NCOs

Sergeants and junior officers can be made from these two kits, but check your references first — the minimal kit instructions are misleading. You can't make an

facing-colour stripe was worn round the waistcoat but under the coat, the ends hanging on the left side; this can be suggested with putty. A sword was worn from the waistbelt, now covered by the sash; and coat lace was plain white.

A grenadier company officer could be made from the Grenadier kit without much trouble. Give him a plain crimson waist-sash and the American Soldier 1775 sword, in the same way as the battalion sergeant. Add a gorget, and an epaulette on the left shoulder; give him leather knee-flaps on his gaiters; and give him a single cross-belt with a cartridge pouch, and a musket.

Finally, a couple of general points. When putting full marching equipment on your models, remember that the pack had shoulder straps united by a horizontal H-strap across the chest — not shown on the kit packet. The fur pack was sometimes greyish-white goatskin. A canvas satchel-pack, as supplied in the American Soldier 1775 kit, was frequently worn in the British army; set it square on the shoulders, give it a conventional white H-harness, and paint the side and bottom folds in a contrasting shade of brown or grey to suggest the blanket normally folded under the strapped flap. If you think your painting skill is up to it, do consider shaving all moulded lace detail from the coat lapels and pockets, cuffs and collar; it is wildly out of scale and very difficult to paint crisply — free-hand lace painted on a flat surface is much more pleasing. Lastly, ignore the flag in these kits. Actual size was 6 feet wide by 6½ feet deep, on a 9 foot 10 inch staff. □



Airfix Magazine Guides 13 and 14

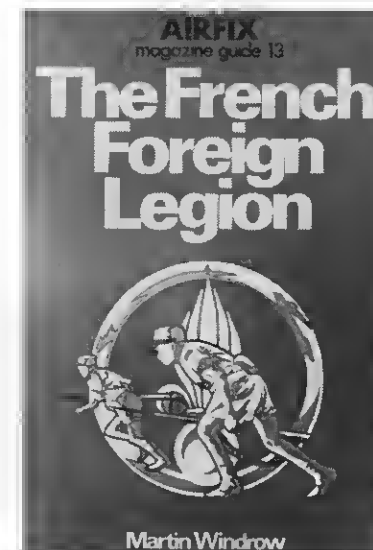
Famous fighters ground and air

The French Foreign Legion

by Martin Windrow

Discover for yourself the exciting truth behind one of the world's most famous and most glamourised fighting forces! This book, by a foremost authority on the subject, traces the Legion's history from its foundation in the 1830s, through its campaigns in Africa, the Crimea, Mexico, the Far East and two World Wars (including descriptions of its most famous battles, such as Camerone and Dien Bien Phu), describes its uniforms, badges, organisation and equipment, and provides numerous modelling hints and examples for anyone working with the forthcoming Airfix 54 mm scale kit of a legionnaire. The book is lavishly illustrated with photographs, and uniform drawings by Gerry Embleton.

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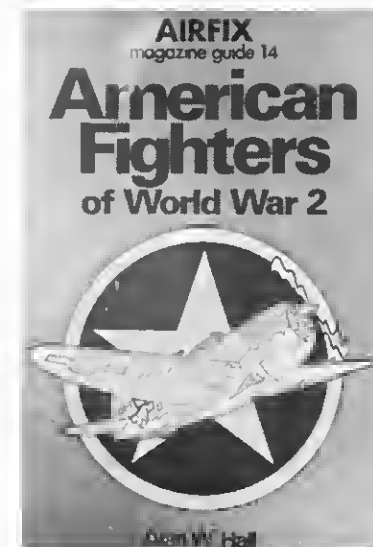


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Renault R-35/40



Scratch-built in 1:76 scale by Steve Zaloga

THE R-35 SERIES was designed in the mid-1930s as a replacement for the famous FT-17 light infantry tank. There were several successive versions produced as are shown on the plans here. The initial production type (Renault 1935) was armed with the same short SA 18 37 mm gun as the FT-17 and had the early style binocular visors on its turret. Later, The APX-R turret was fitted with simpler slit-type visors. The subsequent version (Renault 1938) which is informally called the R-39, was equipped with an unditching tail at the rear and late production vehicles carried the long SA 38 37 mm gun and sometimes a radio set. The final model in the series was the APX R-40 which had a completely redesigned running gear. R-40s in service were usually fitted with the long-barreled SA 38 as shown on the drawing here, and were often fitted with the unditching tail. Renault and its subsidiaries built about 1,500 of these series, making it the most numerous tank in front-line service with the French Army in 1940.

The R-35 first saw action in Poland in 1939, where 48 served with the Polish 21st Tank Battalion. At the close of the Sep-

tember campaign, many of the surviving R-35s escaped into Rumania where they were interned. These R-35s along with others supplied from France (and after 1940 from Germany) served with the Rumanian Army and later saw action on the Eastern Front. Needless to say, the R-35 saw extensive action in the 1940 campaign, where its thick armour gave it a degree of immunity from the German 37 mm AT gun. At the same time though, its inefficient one-man turret proved to be a serious handicap in modern tank-versus-tank warfare. After the collapse, it laboured on in Vichy French service, opposing the US Army in Morocco and the British in Syria. The Wehrmacht captured large stocks of R-35 but generally preferred its stablemate, the H-39. Still, they used a small number for anti-partisan work in France and Italy and converted others to carry the Czech 47 mm AT gun. Others had their turrets removed and were used as supply vehicles on the Eastern Front. Many of these surplus turrets were used in coastal defence works. The Italians were supplied with R-35s and these were used by the 131st and 132nd Tank Regiments on Sicily, seeing action

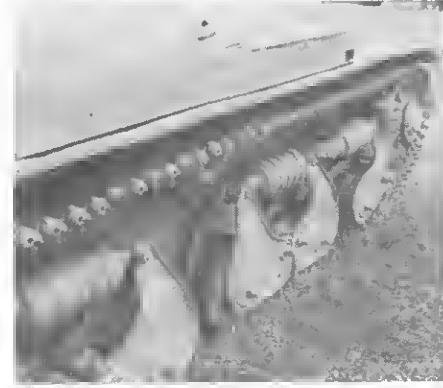
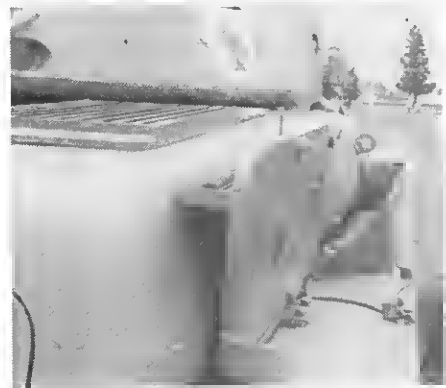
against the American beachhead at Gela in the summer of 1943. Some R-35s returned to their original owners during the liberation of France in 1944, and the French later used R-35 turrets in concrete emplacements during the bloody fighting in Indo-China in the 1950s.

In spite of its varied and interesting career, there is still no kit available of this historically important little tank. It is a moderately difficult vehicle to scratch-build, owing to its cast parts and complicated suspension, but there are several alternate ways to approach these problems and they will be dealt with here.

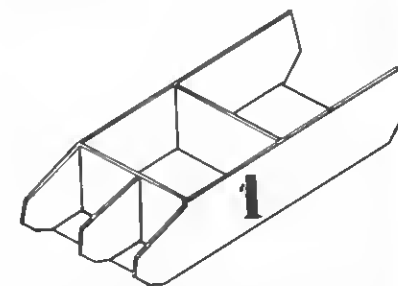
Before beginning to cut plastic, it's a good idea to carefully study photos of the R-35. Besides those here, there is also a good selection in the Profile on the R-35.

Beginning with the hull, the underpan is fairly straightforward. As the front portions are cast and rounded, a plastic on the order of 20 thou is needed to provide an adequate basis for rounding of the edges. When cutting out the pieces, allowances should be made for the thickness of the plastic. If 20 thou is used, and it is planned to have the front and rear panels rest on the top edge of the side panels, then 20 thou should be cut off the edges of the true size

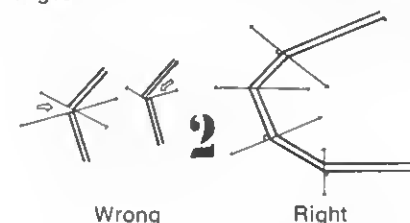
Top of page A rare shot of a disabled R-40 somewhere in France in 1940, armed with the long SA 38 gun and fitted with an unditching tail (National Archives). **Far left** Photo from the right rear corner of the vehicle preserved at the Aberdeen Proving Grounds, showing the changing contours of the hull side as well as the base plate for the jack. **Left** A detail view of the R-35 suspension. The rubber tyre has been completely worn off some of the wheels. **Facing page, top** Author's model on diorama base.



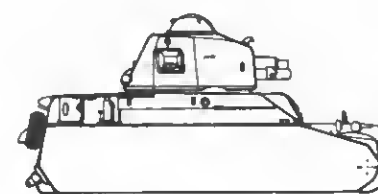
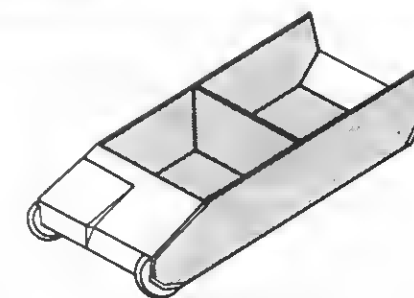
of the side plates to compensate for this. These allowances may seem trivial but without this sort of pre-planning, your model is apt to take on a rather distorted appearance. Figure 1 shows this first stage of assembly.



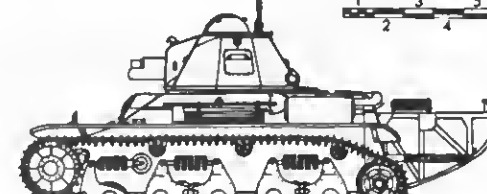
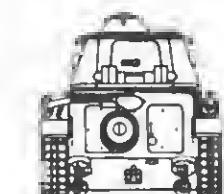
The multi-angled nose contains a number of odd-angled joints which require the nose panels to be bevelled with a fine file. Plastic sheet is not two-dimensional, and unless the edges are bevelled, gaps and weak points will occur as are shown in Fig 2. Once this hull assembly is complete, differential bulges can be added to the front using scrap road wheels, and the whole unit left aside for a day or so to let the glue dry prior to rounding down the edges.



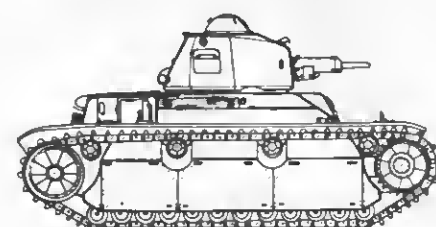
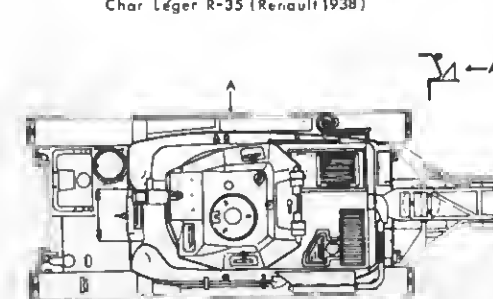
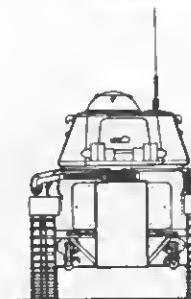
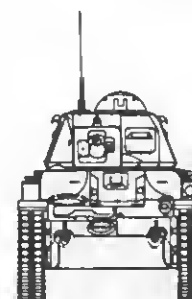
Attention now turns to the upper hull superstructure. There are basically three methods which can be used here — 'laminated', 'simplified built-up' and 'complex built-up'. Laminated is a fairly straightforward technique of building up layers of plastic card as thick as the hull itself and then filing the whole thing to shape when the glue dries. The best cement to use for this is the expensive contact type such as Perma-bond, but thick coats of liquid cement will also do. The thickest plastic available should be used for obvious



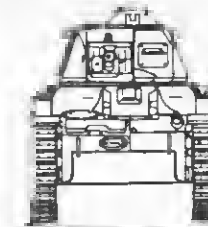
Char Léger R-35 (Renault 1935)



Char Léger R-35 (Renault 1938)



Char Léger R-40 (AMX 1940)

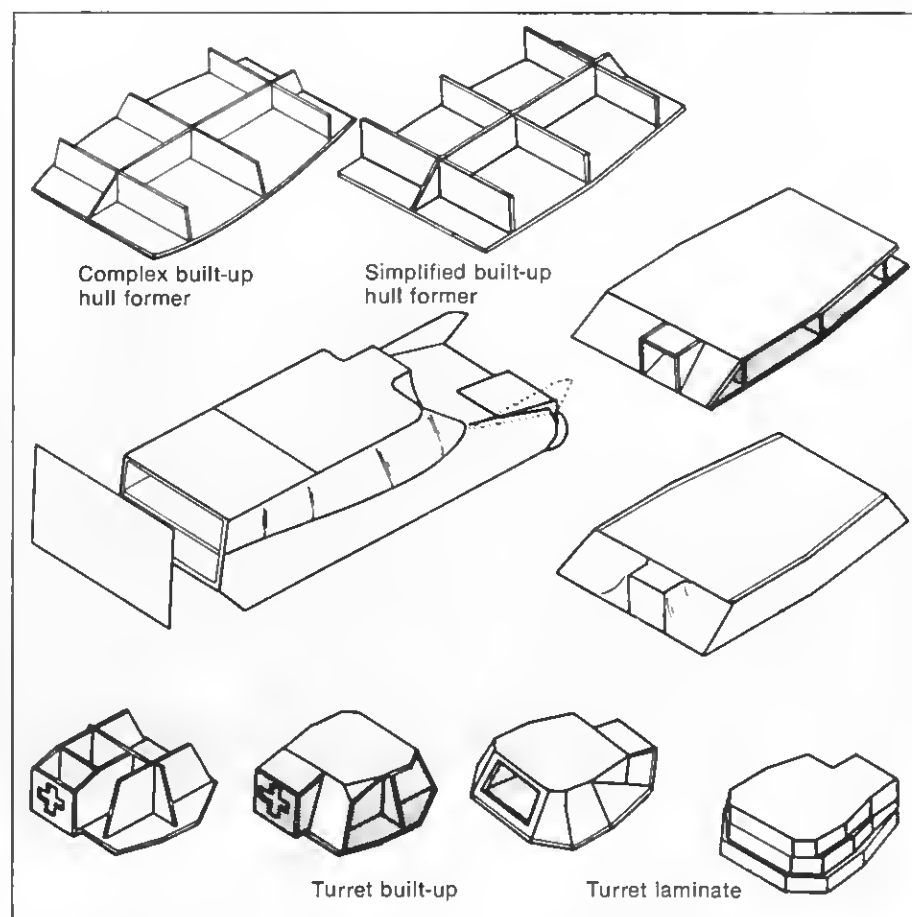


Char Léger RENAULT 35



reasons and the main drawback to this method is the great amount of labour it requires to shape a thick laminate plug. Either 'built-up' style is easier. The main difference between the two 'built-up' methods shown here is that the 'complex built-up' takes into account the changing angle of the hull sides, while on the 'simplified built-up' a thicker plastic is used and the changing angle of the hull sides is taken care of later by filing the sides to shape. On the 'complex built-up' 20 thou is used for the sides, and the hull top and bottom pieces are given the correct curve. On the 'simplified' version the top and bottom are simple straight lines and the curve, like the hull side angles, is added later by careful filing. This whole affair may seem a bit murky on first reading, but by studying the drawings here, I'm pretty sure you'll get the idea. Once this assembly is complete, the driver's bulge can be added with plastic sheet and putty and shaped when dry.

With this assembly complete, the top and bottom hull positions can be joined, and the rear panel added. With the whole hull finished, the suspension can be dealt with. The fenders are straightforward and should create no special problems. The suspension is rather tricky, especially the lip around the suspension covers. I managed to get around this by vacu-forming each cover individually. This has the advantage of providing a thin lip as well as requiring only three moulds — left and right wheel cover, and the different front style. For those without vacu-forming facilities, my only comments are 'good luck'. About the only way to get the lip without a vacu-form is to run a thin strip of 5 thou around the edge of each individual wheel cover (but frankly I can think of easier methods of inducing a nervous breakdown). Perhaps an easier course would be to simply ignore the lip. The roadwheels themselves as well as the return rollers can be taken from an Airfix PzKpfw IV, and the front drive sprocket from a Hetzer or other similar source. The rear idler can come from an Airfix Sherman or Lee/Grant. Of course a simpler

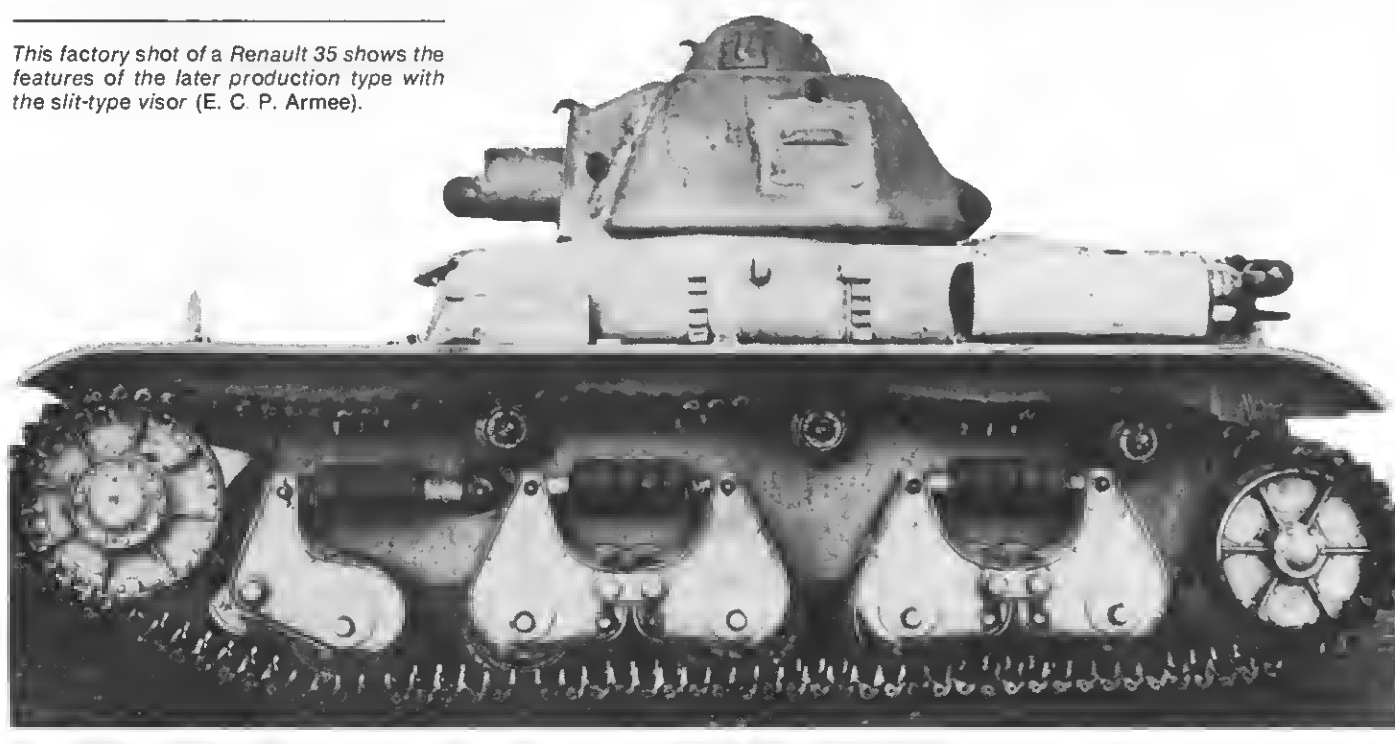


way around this whole problem is to build an R-40 instead of an R-35!

Now we can turn to the multi-faceted, migraine-inspiring turret. Suitably buffered with aspirin or more potent elixir, the turret can be made by the laminate or built-up methods. The drawings here show the progressive stages of building up the turret and it will be noted that the number of internal formers has been kept to a minimum in case the rear hatch is left

open. If closed, more formers can be used. Once this masterpiece of solid geometry is together, and the cement dry, the edges can be suitably rounded with sandpaper. The peculiar little observation bell on the roof can be scrounged from the scrap box. Mine came from a Revell 1:48 scale Gemini space capsule oxygen bottle! Last of all, attention turns to all the nifty little details which all of us scratch-builders have developed our bulging buggy eyes for.

This factory shot of a Renault 35 shows the features of the later production type with the slit-type visor (E. C. P. Armee).



A pair of mud-encrusted Munitonpanzer 35R(t) — the turretless R-35 used by the Germans as an ammunition carrier on the Eastern front.

With construction now complete, painting is in order. Vehicles leaving the factories in the mid-1930s were painted overall 'vert armee' which was a very dark semi-gloss green. This was frequently over-painted with a wavy pattern of 'ochre' (a mid-brown) which was in turn outlined with black, or on occasion, cream. The variations on these patterns were largely dependent on which Renault subsidiary built the vehicle. Vehicles leaving the factory were also given a standard 'matricule', usually in the 51,000 to 51,600 block. This was painted in white on the right side of the bow, and on the upper part of the right rear access plate on the vehicle's rear. This was always preceded by a French tricolour.

In 1939, the Army directed that all tanks were to be painted in a three-tone pattern of 'ochre', 'marron' and 'vert gris' (mid-brown, red-brown and grey-green). This directive was largely ignored as far as the

R-35 series was concerned, though there is photographic evidence that some R-39s were painted in overall ochre with grey-green patterns, but these are uncommon.

In January of 1940, the final directive was issued, calling for all tanks to be finished either in 'vert armee' or in 'gris armee' (a dark blue-grey). Many R-39s, and nearly all R-40s, were finished in overall vert armee with no other colours. However, many R-35s were not repainted and so retained their two-tone pattern right up to 1940.

Besides these basic and standard markings, numerous unit and individual markings were carried including things like French roundels, turret numbers, names, cartoons and the like. However, this whole matter is too complicated to elaborate here and modellers would be best advised to simply choose a vehicle well illustrated in photos and base their model's markings in the photos. Bon chance!

Author's model showing close-up of tail.



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Bleriot XI

Louis Bleriot and his fabulous flying machines described and illustrated by Harry Woodman

WHAT WAS ONE to do? The problem confronting the Dover Customs Officer was one which had never bothered any of his predecessors. Being a devoted and conscientious servant of the Crown he was anxious to do the right thing, to follow the correct procedure, but there was no precedent. He had received no instructions, the regulations contained no amendment, the situation had not been foreseen by higher authority.

After giving the matter some thought he dutifully completed a quarantine certificate to the effect that he had... 'examined Louis Blériot master of a vessel "Monoplane", lately arrived from Calais, and that it appears by the verbal answers of the said master to the questions put to him that there has not been on board during the voyage any infectious disease demanding detention of the vessel and that she is free to proceed'.

With that remarkable stoicism of the best type of civil servant, his Senior Officer added a note in his report which is a monument to British understatement. In a firm clear hand he wrote '... although air-

ships (sic) will never come into commercial use, there are great possibilities in store for them, and I think a time may come when this Department will have to treat their arrival seriously, and take steps to ensure that no opportunity be given for Revenue interests to suffer through indiscriminate landings of airships in this country'.

What had happened on that July morning in 1909 was one of the most significant events to occur in this century. A determined little Frenchman with a walrus moustache and bright blue eyes had coaxed his fragile little aeroplane over 23 miles of water to land on the sacred soil of England. He had in fact crossed the English Channel, or as he would have it, La Manche, without touching the water. To fully understand the import of this event and to appreciate the full significance it held for the British at that time it is necessary to see it in a contemporary perspective. In 1909 there were many in this country who still regarded the French as potential opponents in a future war despite the recent diplomacy and the activities of King Edward VII. France was still 'the old enemy'

Commercial postcard of 1909 showing a scene outside the Bleriot hangars at Reims during the August meeting. The machines at right and left are Bleriot XIs, the one in the centre is the model XII. It crashed at this meeting on August 29 and was burnt, though Bleriot himself was only slightly injured. The numbers are racing designations.

and to the French, Britain was still 'perfidious Albion', mistrust still lingered. The British in their time-honoured way of considering the consequences of an event after it had happened after totally ignoring the possibilities beforehand, waxed enthusiastic about the flight. The Press mixed enthusiasm with dire warnings and much apprehension about the security of the Realm. Some commentators went to one extreme envisaging fleets of aerial invaders crossing the Channel whilst others dismissed the aeroplane as some kind of fad. Some, like Gordon Selfridge, acted swiftly in accordance with Napoleon's dictum that the English were a nation of shopkeepers by exhibiting Blériot's monoplane in his Oxford Street store. So as not to strain the limited technical knowledge of his elegant shoppers he placed a notice beside the machine indicating the direction in which it normally flew.

The man of the moment, Louis Blériot was not in the mould of the popular flying sportsmen of the day. He did not have the Latin charm and elegance of the diminutive Santos Dumont nor the dashing, devil-may-care quality of Hubert Latham. He was more like the hard working and serious A. V. Roe or Henri Farman. Blériot was born at Cambrai on July 1 1872 and was already a successful businessman by the time that he became interested in aviation at the beginning of the century. Despite the success of the Wright brothers in the United States in 1903 it was France which dominated the aviation scene until the outbreak of war in 1914. It was in 1901 that the erstwhile manufacturer of automobile headlights built his first model flying machine. This was an ornithopter which flapped itself to death. From then until January 1909, when the first form of the model XI appeared, Blériot designed and built, sometimes in conjunction with others, a whole series of machines of varying shapes and sizes.

The model XI first flew at Issy on January 23 1909 and after a short flight at Buc on

The parasol version of the 80 hp type XI seen here in French service. The RNAS also used a few of these machines, their high wing making them most useful for observation purposes.



The most advanced development of the basic type XI was this 'Monocoque' model of 1913 with the front part of the fuselage covered with 3 mm chrome nickel steel so that it was known as the 'armoured' machine. Although arousing interest at the Paris Aero Show in 1913 the machine does not appear to have been put into production, although the famous French pilot Jules Vedrines flew one of this type whilst serving with Escadrille DO 22.

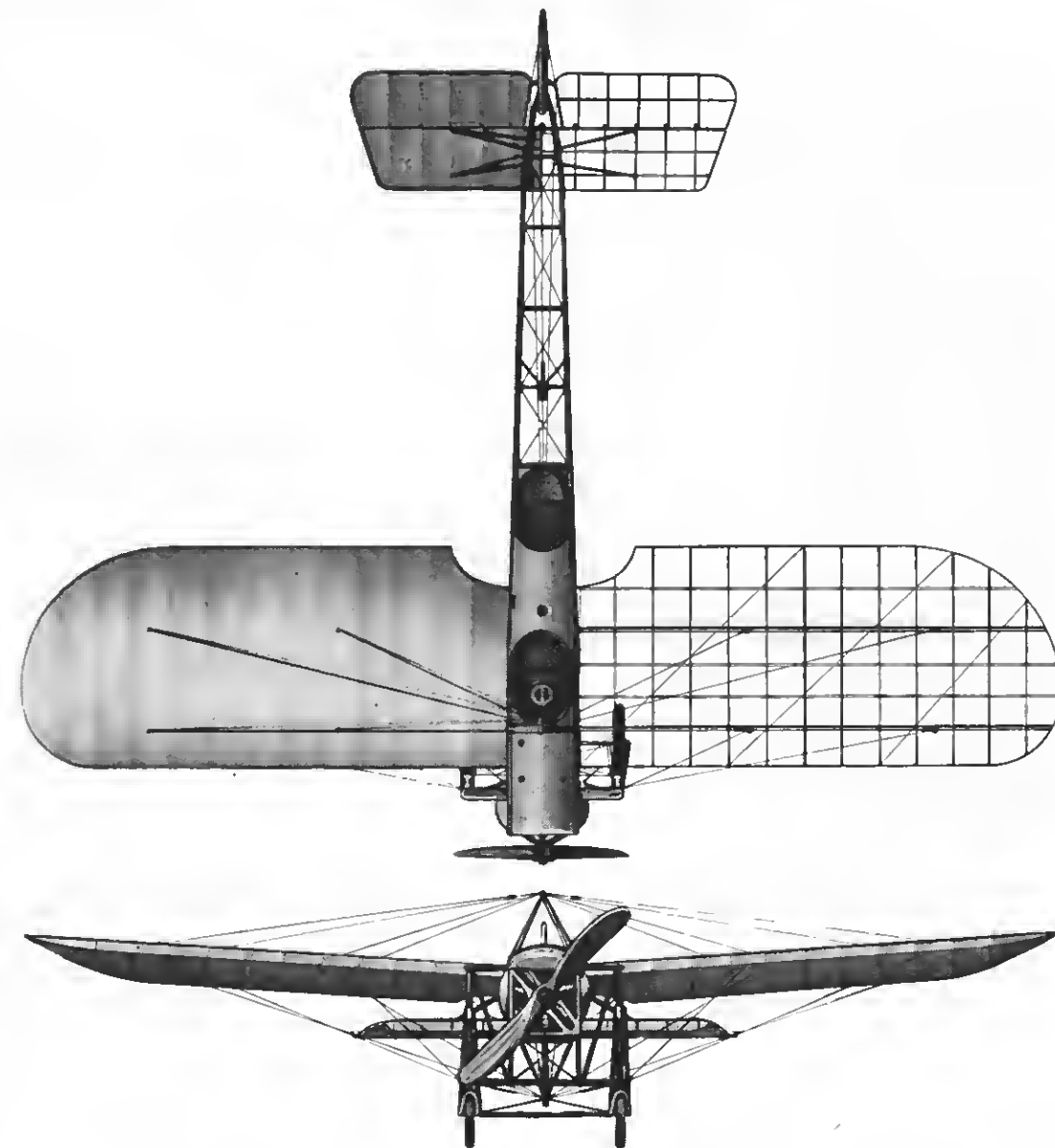
April 5 he decided to modify the machine. The result was the Blériot XI (mod) which appeared in May and eventually became one of the great classic aeroplanes of all time. It should be said that it is now believed that much of the credit for the design belongs to Raymond Saulnier but the driving force behind the project was always the indomitable Blériot.

For its day the XI was quite advanced inasmuch as it was a tractor monoplane with stick and rudder control and the pilot sat in the fuselage, even if it was only partly covered. In addition, the machine had a fully sprung undercarriage with a tail wheel and the engine was air cooled. During its development the XI changed very little. Vari-



SIT-built Bleriot XI (80 hp Gnome) of the 4th (Centocelle) Squadron of the Italian Military Air Corps, 1913.

Span 10.3 metres
Length 8.4 metres
Max speed 85 kph
Climb 1,000 metres in 18 minutes



Colouring: unbleached high grade cotton (pale greyish-white), bare metal and varnished woodwork. Crest of the House of Savoy on rudder (yellow eagle and crown with red shield and white cross superimposed). Lettering black

1:72 scale

BLERIOT MONOPLANE

50 hp

Introduction

The drawings shown here are actual reproductions from an original handbook for RFC fitters, printed in 1912. The original drawings were too faint for reproduction and the Author has here redrawn and re-lined them taking care to preserve the original style of the drawings also the often quaint spelling. Note the frequent use of French terms. The notes are also from the handbook as printed.

Note in the three-view drawings that the engine is not shown as these were specifically for airframe fitters.

General notes

Care must be taken to see that the shock absorber cushions on Chassis Columns are not perished observe the sliding sleeves on columns; these should stand clear above the fixed collars by about 5 mm when machine is resting on trestles. Tighten up all shock absorbers to considerable tension. In truing the Fuselage, all adjustments other than for twist must be made only on the rearmost nuts of 'U' bolts. If the amount of adjustment necessary is found to be so great as to effect the adjustment for twist, there must be no hesitation in

Editor's note The design of these two pages has been deliberately achieved to reproduce as closely as possible the appearance of the original handbook.

replacing the cross bracing wires with longer or shorter as required.

On no account alter the lateral and longitudinal (top and bottom and side) bracing wires. Wings must be perfectly square laterally with fuselage. Adjust by shortening or packing the wood distance piece, which must be properly and firmly fixed in wing tube. Check setting by standing centrally behind rear skid, placing the eyes at such a level as to line up both edges of both planes. If true on raising the level of the eyes, the leading edges of both planes will

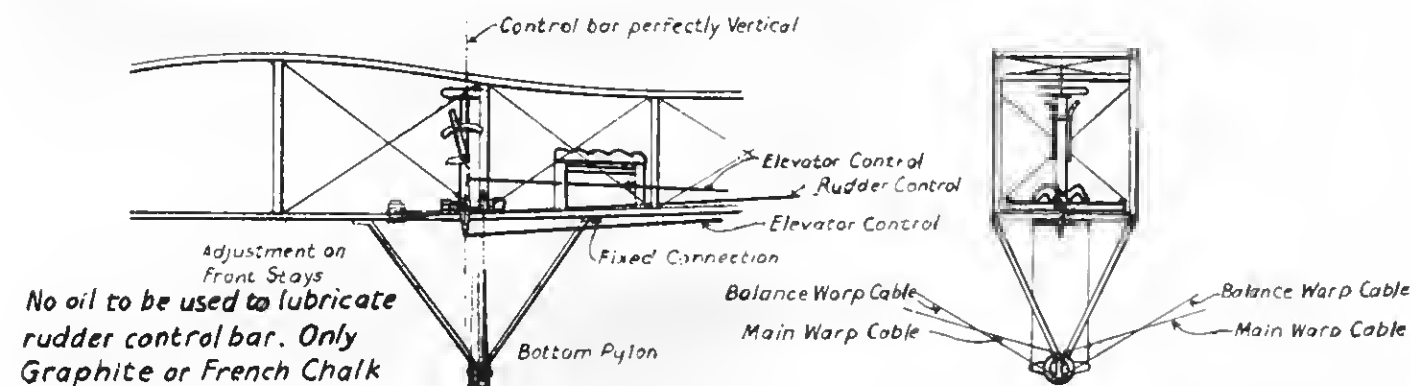
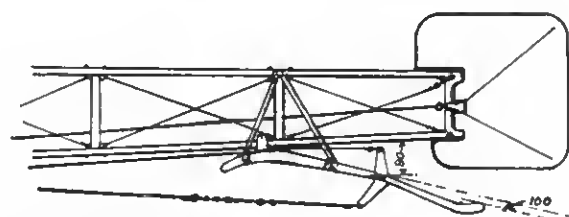


DIAGRAM SHOWING TRUING OF FUSELAGE.

SECTION OF TAIL PLANE AND ELEVATOR



Note 2

The dihedral of the main planes of all types is the same viz. 4% or 1 in 25. It should be correctly adjusted by means of dihedral boards as sketch, placed along the front main spar, with the 4" end towards the fuselage and 2" end towards wing tip. At the same time planes should be set true laterally so that when viewed from above, leading edges on both planes should make a perfectly straight line. All bolts should be placed with heads to the wind.

Note 1

In flying position the Chassis columns should have a forward stagger 2". The Planches should droop at ends 5 mm below centre part before engine is fitted. Engine bearer surface should slope backwards at an angle of 2°. Measure with Thrust Board as shown. The centre line of the engine and propellor is normal to this surface and the angle with the horizontal is called the angle of thrust.

SECTION OF MAIN PLANE

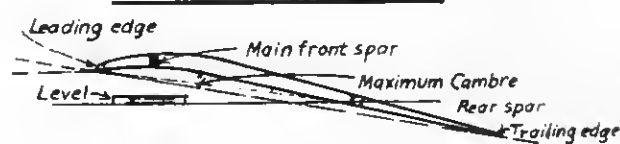
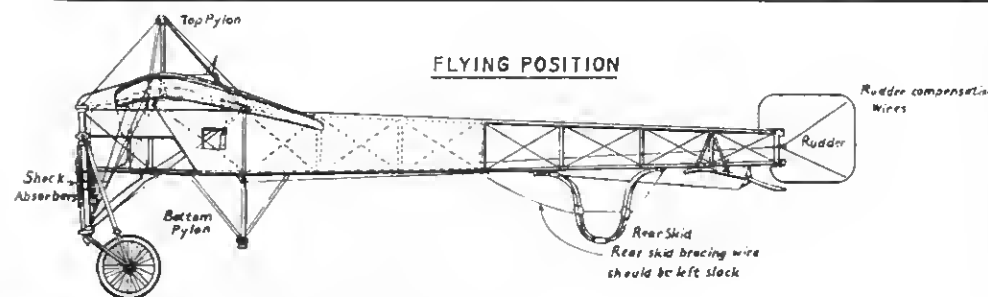
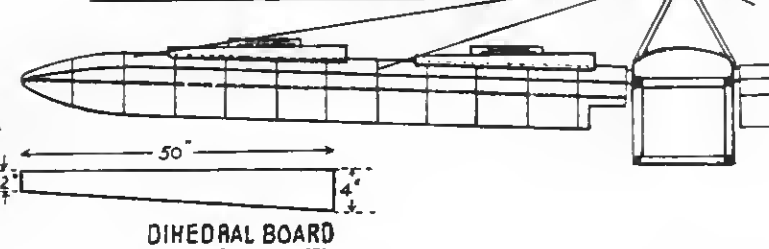


DIAGRAM OF DIHEDRAL OF MAIN PLANES.

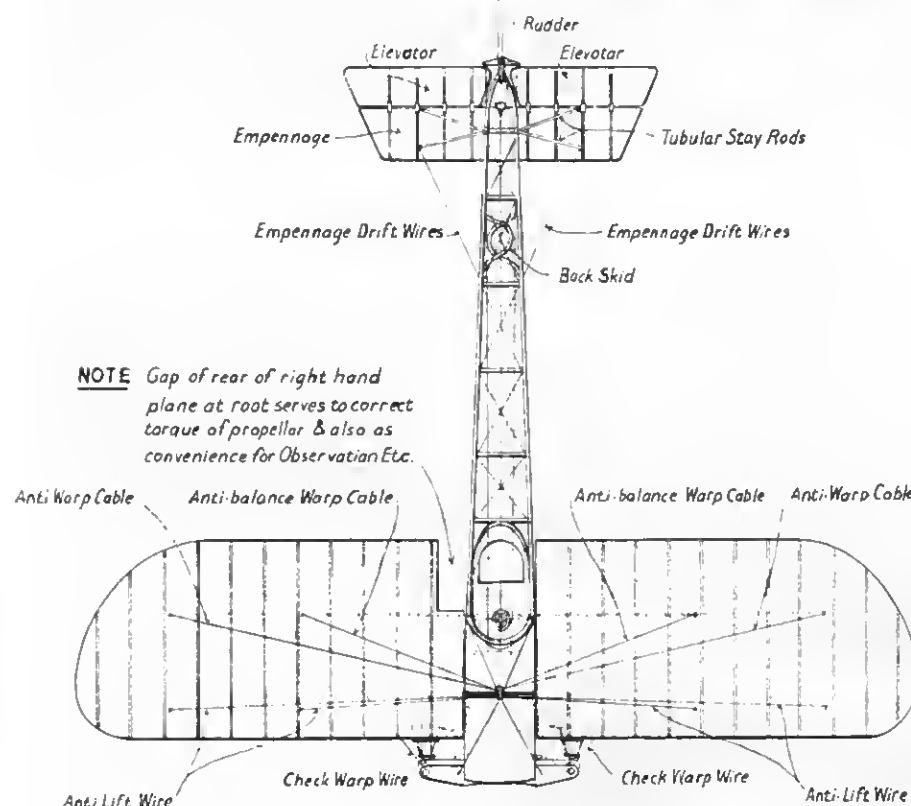


disappear Simultaneously. If trailing edge of either wing be not perfectly straight correct by pressure before adjustment.

Note 3

With machine in flying position fix and firmly support control bar in a perfectly vertical position perpendicular to pilot's footboard. To adjust Bottom Pylon drop plumb

lines from each end of warp bar on control lever through holes in footboard. Ends of warp bar on Pylon should be immediately below these. Adjust by moving two front stays of pylon.



NOTE Gap of rear of right hand plane at root serves to correct torque of propellor & also as convenience for Observation Etc.

ious rudder shapes were tried out and the rather primitive tailplane with its tip elevators gave way to the more orthodox type. As more powerful engines became available, the machine grew larger but still kept the same shape and the tail wheel, although an innovation at the time, was largely discarded for a tailskid to prevent the machine rolling too long on landing. Lateral control was by wing warping and Blériot was the first to apply the Wright Brothers' method successfully in Europe. Ailerons were known but still undeveloped and would not appear on all aircraft until well into World War 1.

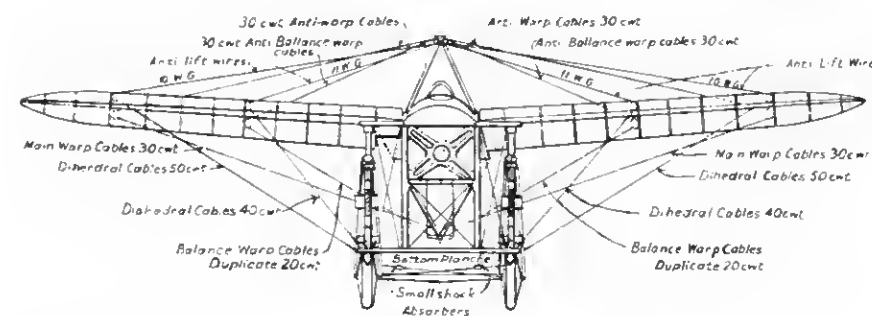
Blériot had made some outstanding flights in his new machine before crossing the Channel but it was this flight which firmly established his name in history. To use a modern phrase, nothing succeeds like success and after the Channel flight everyone wanted a Blériot monoplane. Within a week of the flight Blériot received orders for 100 machines and by 1910 the Type XI was being offered, complete with engine, for £480. Agencies were established in London and elsewhere and business bloomed. Blériot monoplanes were seen in the air from Australia to San Francisco, and if they were not actual Blériots they were copies. It was just as well for Blériot that he did achieve financial success for he had sunk his previous profits in the aviation business.

In the War Ministries of Europe, the more forward looking officials began to consider the possibilities of the aeroplane as a weapon of war as did many of the less hidebound army and navy officers. The French, not surprisingly, had been interested as far back as 1906 and had sent a mission to the US to look into the possibilities of obtaining a manufacturing licence for the Wright Biplane. By 1909 they were well underway in the establishment of an air arm for the French Army. The first order for a Blériot XI was placed in September 1909 and by August 1914 there were six squadrons of them in the French order of battle.

The German Army also began to show interest and decided that anything that the French could do, they could do better. By 1914, the German aviation industry was on a par with that of France. Unlike their Austro-Hungarian allies they did not buy Blériots although at least one civil machine was commandeered at the beginning of the war.

Imperial Russia, eager to keep up with the latest developments lacked the industrial capability and experienced mechanics or pilots. The interest, however, was very keen and they made up for their deficiencies by importing machines mainly from France and acquiring licences to build French and German machines.

In Britain, batmen polished general's riding boots and spurs whilst their owners still tried to understand what had happened in South Africa. Admirals worried about the new torpedo and studied Togo's tactics at Tsushima. In April 1909, three months before Blériot's flight, the War Office announced that it had decided to stop experimenting with aeroplanes as the cost had proved too great (they had spent the tremendous sum of £2,500). Nevertheless, in 1911 some finance was made available and in that year six Bristol Boxkites were



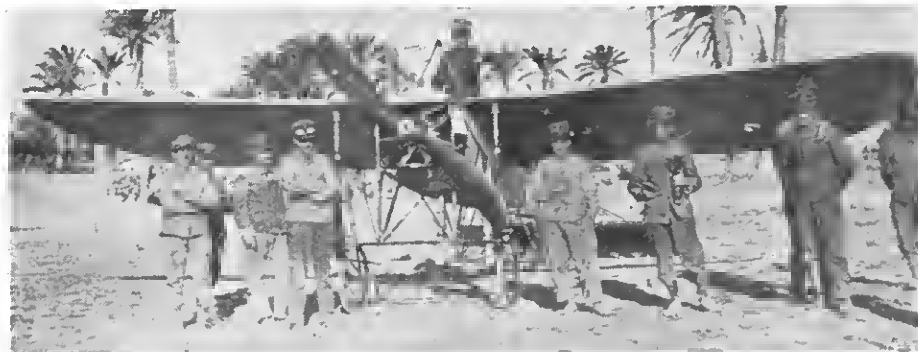


bought a number of French machines. The first Army Blériot XI was given the serial number 219 whilst the first Naval machine was numbered 39 in the RN series. When the 'massed bands' of the Royal Flying Corps were lined up at Netheravon in 1914, five Blériots stood amongst the Farmans, BEs and the sole RE5.

However, the Blériot was to have its first taste of war not in Europe but in Africa and the very first time that an aeroplane would be used in warfare would be over the sand dunes of Libya and the pilots would be Italian.

In 1911, Italy was engaged in a colonial war in Libya against the Turks. The Italian force included a small number of aeroplanes amongst which were two Blériot XIs bought from France. At 06.19 hrs on October 22 1911, Captain Carlo Piazza took off from a field near Tripoli in his 50 hp Blériot. He flew south towards Azizia and noted a number of military tents which he estimated could accommodate about 200 Turkish soldiers or Arabs. He made a note and marked his map and returned to base, landing at 07.20 hrs. It was said that the Turks and Arabs were 'stupified' at the sight of the machine. On October 28, Piazza gained another first when his Blériot 'spotted' for the big guns of the old battleship *Sardegna* which was engaged in the bombardment of the oasis at Zanzur. Other 'firsts' by Blériots during this campaign included the first attempt at a photographic reconnaissance on February 23 1912 and the first war night flight. The first bomb was not to drop from a Blériot but that is a different story.

Highly impressed with the success of the Blériots in the campaign, the Italian War Ministry asked for 70 aircraft to be built by the spring of 1913. This order was issued in



Top Blériot XI, 50 hp Gnome, in Italian service at Tripoli in 1912-13. The pilot appears to be Captain Riccardo Moizo. The soldier on the right is holding Aasen bombs (grenades) and the Blériot has been fitted with a bomb chute pointing vertically downwards just behind the undercarriage (George Haddow). **Above** One of the better-known copies of the Blériot XI or, to be more correct, an adaptation of the original for racing purposes. This is the Radley-Moorhouse monoplane which was flown by W. B. Rhodes-Moorhouse in the first Aerial Derby at Hendon on June 8 1912. The machine came in third and was powered by the usual 50 hp Gnome. Note the attempts to streamline the airframe.

1912 and the Italian aviation industry hardly existed at this time. However, the enterprising Louis Blériot, backed by a group of Italian industrialists, had established a company at Corso Peschiera in 1912. Most of the money was Italian and the new company, Società Italiana Transaerea (known

as SIT) received an order for 80 Blériot monoplanes (a very large order in those days). By May 1913, 16 80 hp Blériot XI two-seaters were delivered followed by a further seven in July.

SIT continued to manufacture and supply Blériots until the summer of 1915 when it became very apparent that the Blériot was completely out of date for war purposes.

After the Italian experience it appeared that no war was complete without the aeroplane and in another of those small sideshows which preceded the main event the ubiquitous Blériot made another appearance. The success of the Italians against the Turks had a profound effect upon other parts of the crumbling Turkish domain, especially those parts in Europe and especially in southern Serbia.

Certain events occurred in 1912 and 1913 which can collectively be called 'The Balkan Wars' and to cut an extremely long and involved story short it is only necessary for the purposes of this narrative to record that in October 1912, Serbia was at war with Turkey. The Serbs had sent some of their military personnel to France to be trained and at the outbreak of war they had a few machines, all French, which of course included Blériots. These took part in reconnaissance and bomb dropping sorties (the bombs being hand grenades) over Skadar (Scutari). After an armistice, Bulgaria attacked Serbia in June 1913 and during this fracas, Sergeant Tomic of the 'Serbian Air Force', flying his Blériot, encountered another Blériot piloted by a Bulgarian. They waved to each other — there was little else that they could do. So, in such unlikely circumstances did the first occasion arise when two military aircraft of opposing armies met in the air.

This war ended in August 1913 and when the big show started a year later Serbia had



only three aircraft serviceable, two of which (and possibly the third) were the old Blériots. The same Tomic, now a Lieutenant, with Captain Stankovic made the first war flight, this time against the Austrians, on July 30 1914. This was a reconnaissance trip over Loznica-Lesnica so that the Blériot XI was certainly amongst the first, if not the first, aeroplane to take part in World War 1.

The French, British and Belgians had Blériots on their first line strength in 1914. By August 17 the German Army had smashed through Liège and was sweeping through Belgium. The British Expeditionary Force was moving up into position and its Commander, Sir John French, asked for aerial reconnaissance to keep him informed of the enemy positions. On August 22 a Blériot of No 3 Squadron, piloted by Lieutenant Noel with Flight Sergeant D. S. Jillings as observer, encountered a German aircraft and exchanged rifle fire. Jillings received a bullet in the leg and the event was described by the young Louis Strange (later Lieutenant Colonel A. L. Strange, DSO, MC, DFC) with all the exuberance of a young officer in those heady days of August 1914, '... our excitement rose to fever pitch when a Blériot of No 3 Squadron came back with 12 bullet holes in her, while her observer, Sergeant D. S. Jillings was wounded in the leg. He was therefore the first British soldier to receive a wound from the enemy in aerial warfare'. Indeed it was more than that, the RFC were engaging the enemy before the main British Army was for the battle of Mons did not start until the day after Jillings' encounter.

Blériots of the RFC and the French and Belgian Air Services did more than could reasonably be expected of them during the first four months of the war. By early 1915 the war that was going to be over by Christmas, wasn't, and things began to look very different. The Blériots were replaced and returned to depots for use by training units. The French clipped their wings and used them as ground trainers, their waddling gait as they skimmed over the grass earned them the name of 'Penguins'.

Louis Blériot himself acquired the Deperdussin firm which later produced the outstanding SPADs designed by Béchereau. After the war his firm continued to build aircraft for several years and he died of a heart attack on August 1 1936.

The Blériot XI was one of the first really successful aeroplanes and was built in large numbers (for those days). It was also built under licence and frequently copied. It was probably the most familiar machine to be seen at any gathering or meeting before 1914 and it was the first to go to war.

At a time when the biplane was supreme the Blériot pointed the way to the future and despite the fact that it was a dead-end design it had great influence on aircraft designers in several countries. Even today, Blériots can be seen in museums in different parts of the world and it is a popular subject for replica builders. Some original machines, carefully and lovingly restored, are still flying and it is possible for the present generation to hear that strange sound in the sky and to look up and see what those watchers saw, 67 years ago at Calais and Dover.

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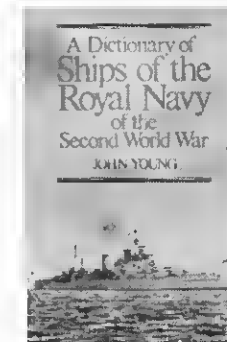
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The French pilot Alphonse Pegoud photographed beside his 50 hp Blériot, specially braced for stunting. Note also the extensions to the elevators. Blériots were popular machines with early stunt pilots, of whom Pegoud was the most renowned. His most famous manoeuvre was the loop, a quite dangerous activity in early machines. Photo taken at Johannisthal (Berlin) in 1913.





HMS Devonshire showing her paces, May 1973 (MoD).

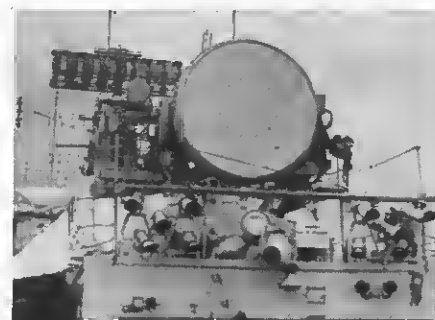
Updating Devonshire

Modifications to the Airfix 1:600 scale kit described by Paul E. Beaver

TERMED A Guided Missile Destroyer (GMD), HMS *Devonshire* DO2 was Britain's first operational guided missile ship, laid down in March 1959 at the yards of Cammel Laird and Co Ltd at Birkenhead; she was launched by HRH Princess Alexandra in June 1960 and commissioned in November 1962. She was also chosen by Airfix for a 1:600 scale kit in their Warship Series, but naturally, since the kit was released certain changes have appeared and these changes (or some of them) will be corrected here.

Seaslug SAM

Since completion, HMS *Devonshire* has had her Seaslug medium range beam riding surface-to-air missiles updated to Mk 2 standard similar to later GMDs. This, however, is of no great importance to the modeller because the two marks seem identical. Drill rounds are painted in red or dark blue, and certain operational missiles have been seen in dark blue with yellow boosters (see illustration).



Left Starboard side deck detail: Seacat launcher, motor launch, liferafts and general detail of this part of the ship. Above The Seaslug guidance radar above the hangar. Note the various lights and aials that can be seen. Both photos taken at Portsmouth Navy Day, August 23 1975.

Seacat SAM

No external change appears to have taken place to this short range system, 2/4 launchers of which equip the County Class GMDs. Both practice and operational missiles appear to be dark blue with a red cone, the launcher being sea grey with a gold centre boss.

Wessex helicopter

HMS *Devonshire* now carries a Westland Wessex HAS 3 'Camel' anti-submarine helicopter instead of the HAS 1 type portrayed in the kit. Naturally, a little sanding and tidying-up must be done and a hump added to the fuselage (see illustration) to give an accurate picture of the current machine. Painting instructions are given later.

Guns

The two 4.5-inch gun turrets have not altered, but two 20 mm Oerlikon general-

purpose guns were fitted to all the County Class GMDs during Police Duties in SE Asia. These are aft of the bridge, just behind the line of the foremast.

Other modifications

Various whip aerals, ECM aerals and other 'bits and pieces' have been added to the *Devonshire* as she has progressed through RN service. These additions can occasionally turn into subtractions as and when the need arises. Therefore, these small modifications will not be noted here; the whip aerals can be seen in the illustrations.

However, the foremost radar is not now semi-circular but is straight and standard Surface/Air Warning radar antenna; the single bedstead AKE-1 Long Range Air Warning radar remains and is characteristic of the first four vessels of the County Class (ie those without Exocet SSM).

Details

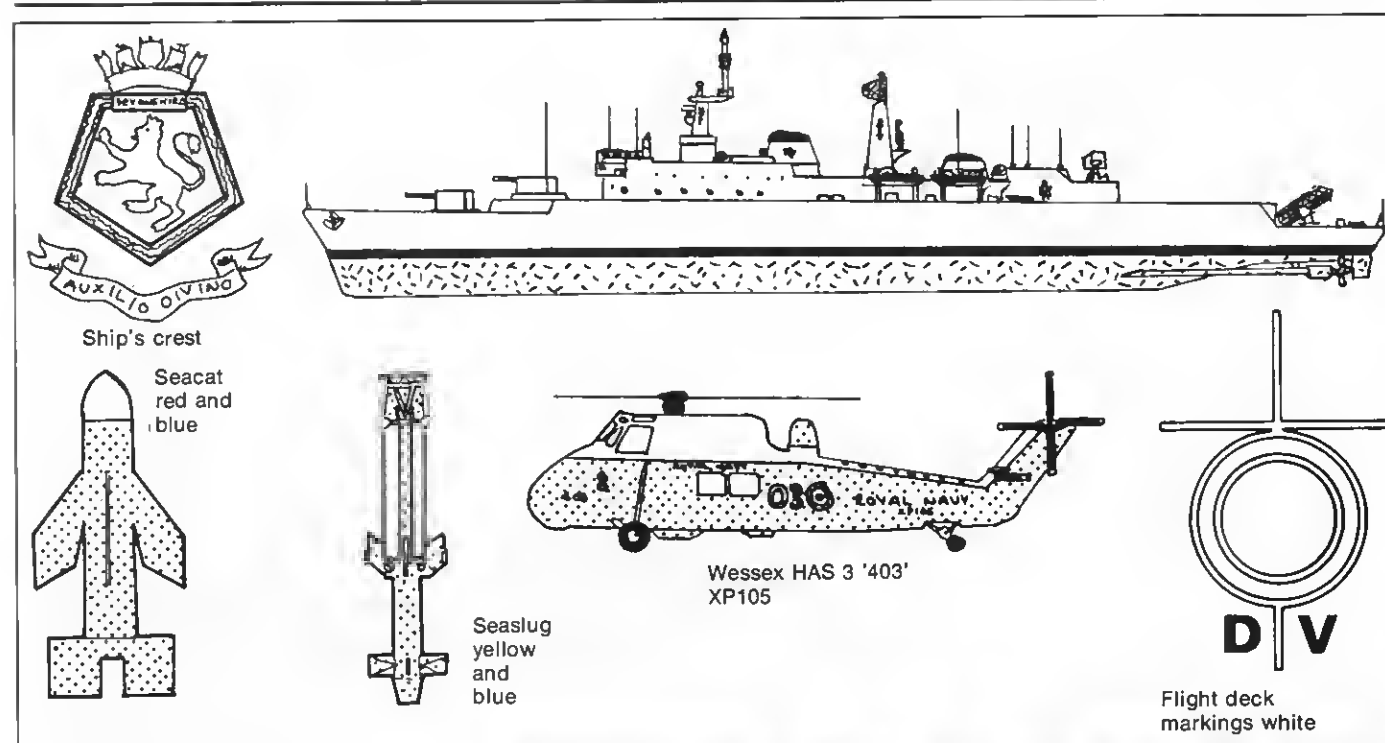
The positioning of the various bollards, capstans and fairleads can be seen from the detailed photographs. It will be seen that there are numerous liferafts in canisters around *Devonshire* (in common with all warships), they are in single or double units and tend to be situated on the main deck. A dory or gemini is sometimes positioned on the main deck directly aft of the motor launch with its own davit. The gemini is available from the HMS *Amazon* kit or similar.

The various portholes and windows are shown in the illustration and in the photographs, the portholes on the hull should be sanded off. The main navigation bridge (uppermost) should be moved forward as shown. The port side motor launches should be moved aft so that the second one is parallel to the after funnel, as shown. The starboard boats can be left as they are.

Two black searchlights should be added to either side of the first funnel, slightly forward of the leading edge of the funnel. The various smaller details can be modelled from the photographs as necessary.

Painting instructions

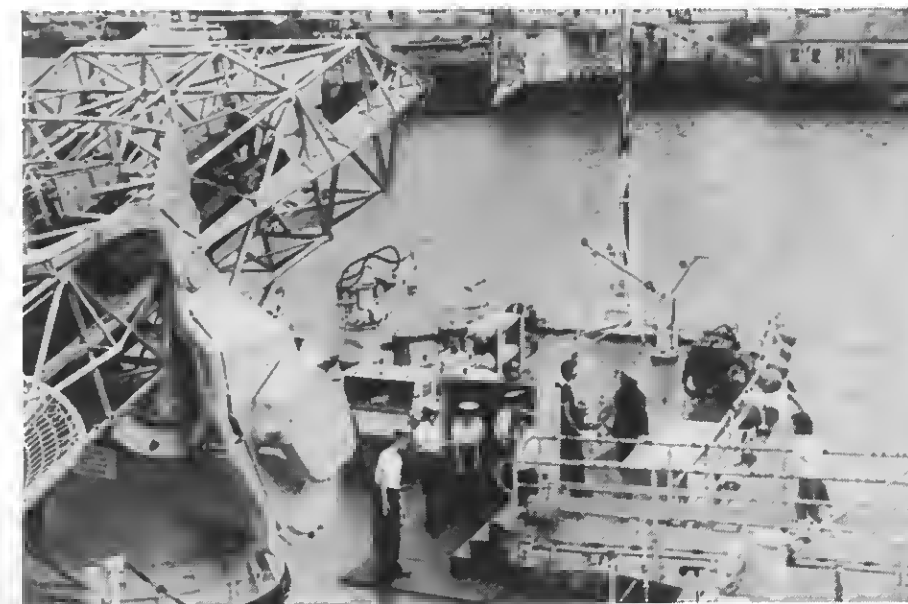
Mild-grey Superstructure, turrets, hull



above waterline, radars, anchors, Seaslug launcher. **Dark grey** Flight deck area to just forward of the Seacats, after deck. **Dark green** Starboard navigation light, upper decks, forecastle, including bridge top. **Dark blue** Helicopter, hull of launches, Seacat and Seaslug missiles. **Yellow** Upper part of helicopter, rotor blade tips, Seaslug boosters, Seacat launcher boss, practice sonar floats. **Black** Funnel tops, rotor blades, boot topping, gun barrels, gemini, portholes, windows, searchlights. **Brick red** Anti-fouling under water line. **Red** Port navigation light, Seacat noses, red lion emblem either side of the forward funnel, whip aerial bases. **Silver** Gun barrel tips. **White** Dory, superstructure and below waterline of launches, stays on the staffs, flight deck markings, bollards, fairleads, chains, capstans on forward deck: port one striped red, starboard one striped green — vertically. **Brown** Jack staff, ensign staff, decking forwards of bridge around 'B' turret and aft to Seacats, decking around 'A' turret. **Bronze** Propellers.

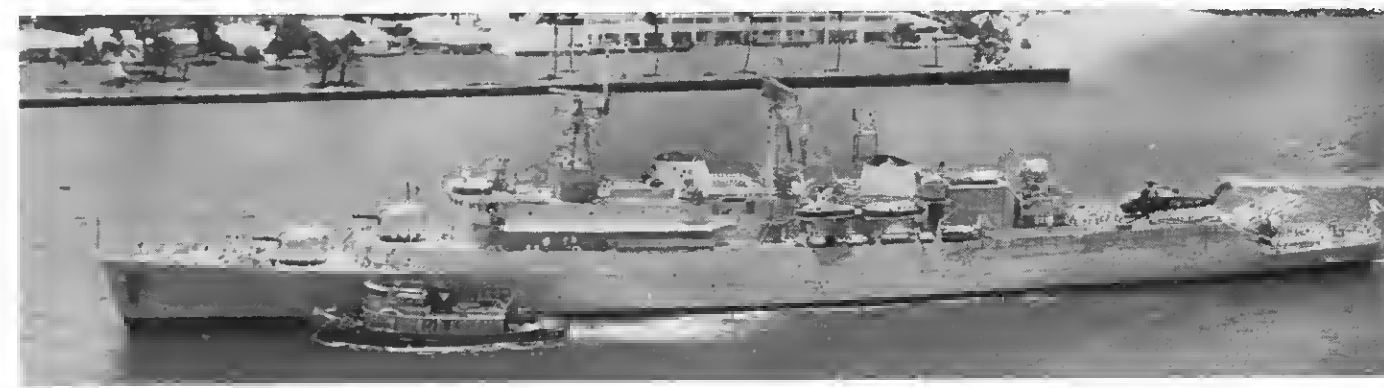
General notes

This account has tried to show *Devonshire* in 1975, the other three first series Counties — *Hampshire*, *Kent* and *London* are similar except for colour scheme and pennant numbers. References used were:



Jane's *Fighting Ships*, *Navy News* (various), *Navy News* postcards, MOD/RN information and photographs, and the author's own notes, photographs and slides. My grateful thanks to W. Nutt, Esq., MOD PR.

Above The after end showing the Seaslug launcher, fairleads, bollards, practice sonar floats, hoists and ensign jack. Below *Devonshire* entering Fort Lauderdale, Florida, in June 1973 (Royal Navy).



Operation Sealion as a wargame

Penultimate article in this popular series from Terry Wise

IN THE OCTOBER 1935 issue of the journal of the French General Staff, *Revue Militaire Française*, Lt Col Lançon wrote prophetically: 'If any power is in a position to put between eight and ten mechanised divisions into the field on the outbreak of hostilities, it will develop a striking power which nothing in the present state of affairs will be able to stop. On this hypothesis, the beginning of the war might very speedily lead to its end.'

Between early April and June 21 1940, Norway, Luxembourg, Belgium, Holland and France all capitulated to the mechanised divisions of Nazi Germany, and we have seen in this series how, in July

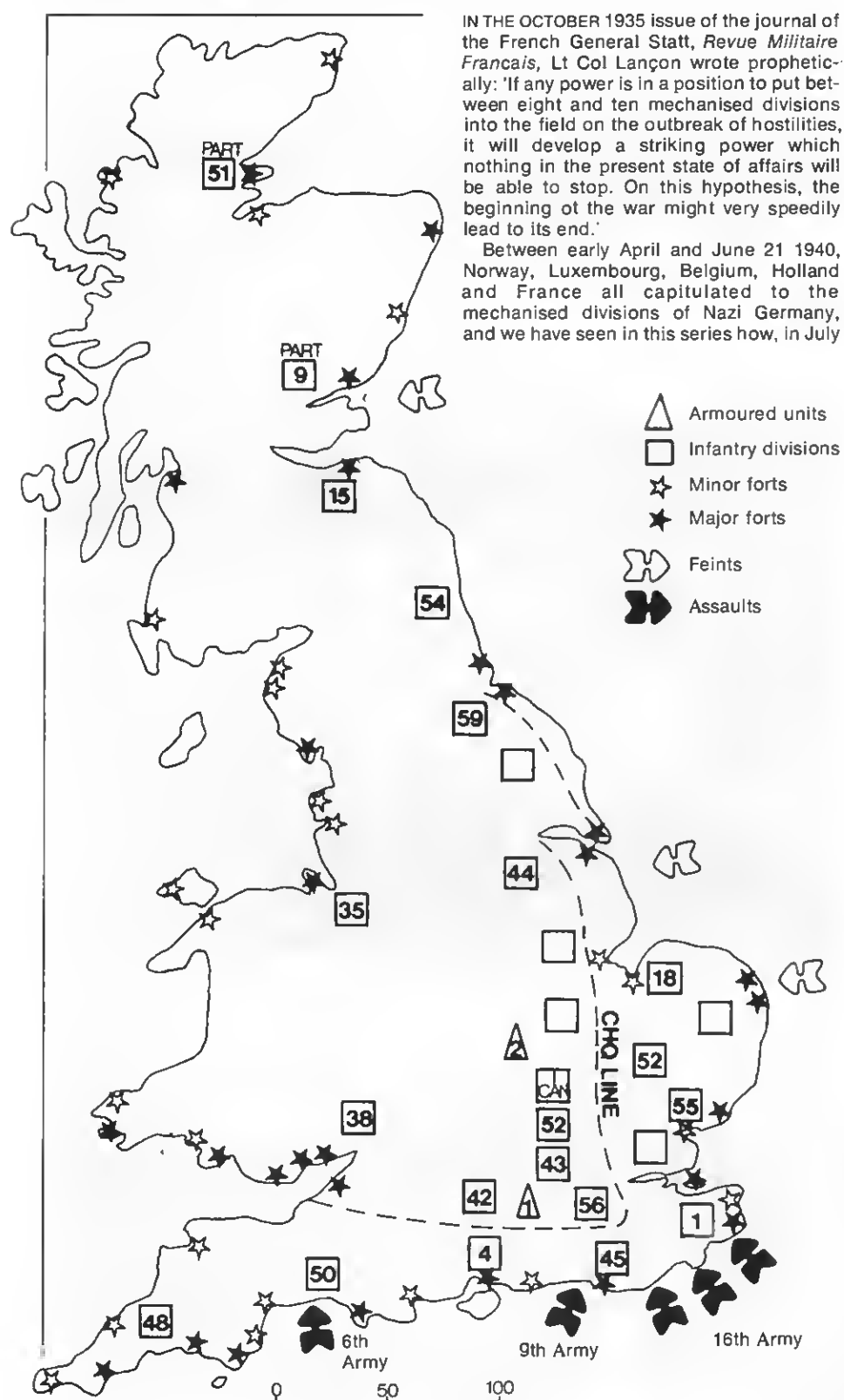
1940, these divisions may well have struck across the Channel. Had such a landing succeeded — and it probably would have done so in July — the fall of France would have been followed swiftly by the conquest of England, and World War 2 would have come to an end for Western Europe with the whole of the west (except Switzerland) under Fascist control.

Obviously, therefore, Operation Sealion was no minor amphibious project, no idle day-dream of Hitler's, but a major, extremely complex operation designed to take Britain out of the war in order to bring the lightning war in the west to a satisfactory conclusion, leaving Nazi Germany free to deal with its main enemy — the Communists in the East. To fight such a vast invasion as a wargame campaign ideally requires a large wargame club, capable of fielding large forces, or even several such clubs working in unison. I was most fortunate in being invited last October to act as umpire-in-chief to just such a game — a game which made my own small Sealion campaign appear insignificant! This was the first ever Big Battle League campaign, fought on a hall floor measuring 41 x 24 feet over a two day period and involving over 4,000 infantry, 700 AFVs, 200 aircraft, 40 landing craft and other naval vessels, and all the technical equipment of modern armies.

Whilst such big battles will no doubt become very popular (the League is moving rapidly into a world situation, with each country represented by a wargames club) it is obvious that not all wargamers will be able to play a part in them, for a variety of reasons, and that many will wish to fight Sealion as a solo campaign, or with their usual two, three or half dozen regular opponents.

I have always felt that World War 2 wargaming between two or three players can never rise above regimental or perhaps brigade level, because of the complexity of weapons and logistics, but Sealion is primarily a map and staff work campaign and, should the Nazis have established a beach head, would soon have deteriorated into a series of small battles between isolated British regiments and the invaders; or minor combats with Home Guard and auxiliary unit guerrillas, and other small pockets of determined men, fighting on long after the capital had capitulated and the politicians had officially surrendered. Add to this the possibility of probing raids to test British coastal defences prior to the invasion; paratroop drops in rear areas; feints against other coastal areas; and the inevitable scattering of the German assault wave; and it becomes obvious that a large number of separate table games may be fought to give many evenings of enjoyment, provided they are linked together into a coherent campaign. To me this is the attraction of Sealion. So the aim of this and next month's articles is, as a natural conclusion to the series, to lay down some guidelines for Sealion as a wargames campaign.

There is not the space here to go into the intricate detail of table top and campaign rules, nor to list the performances and weapon capabilities of all vehicles, AFVs, aircraft, weapons etc: these fields are fully



British defences and probable dispositions, early July 1940

Continued on page 474

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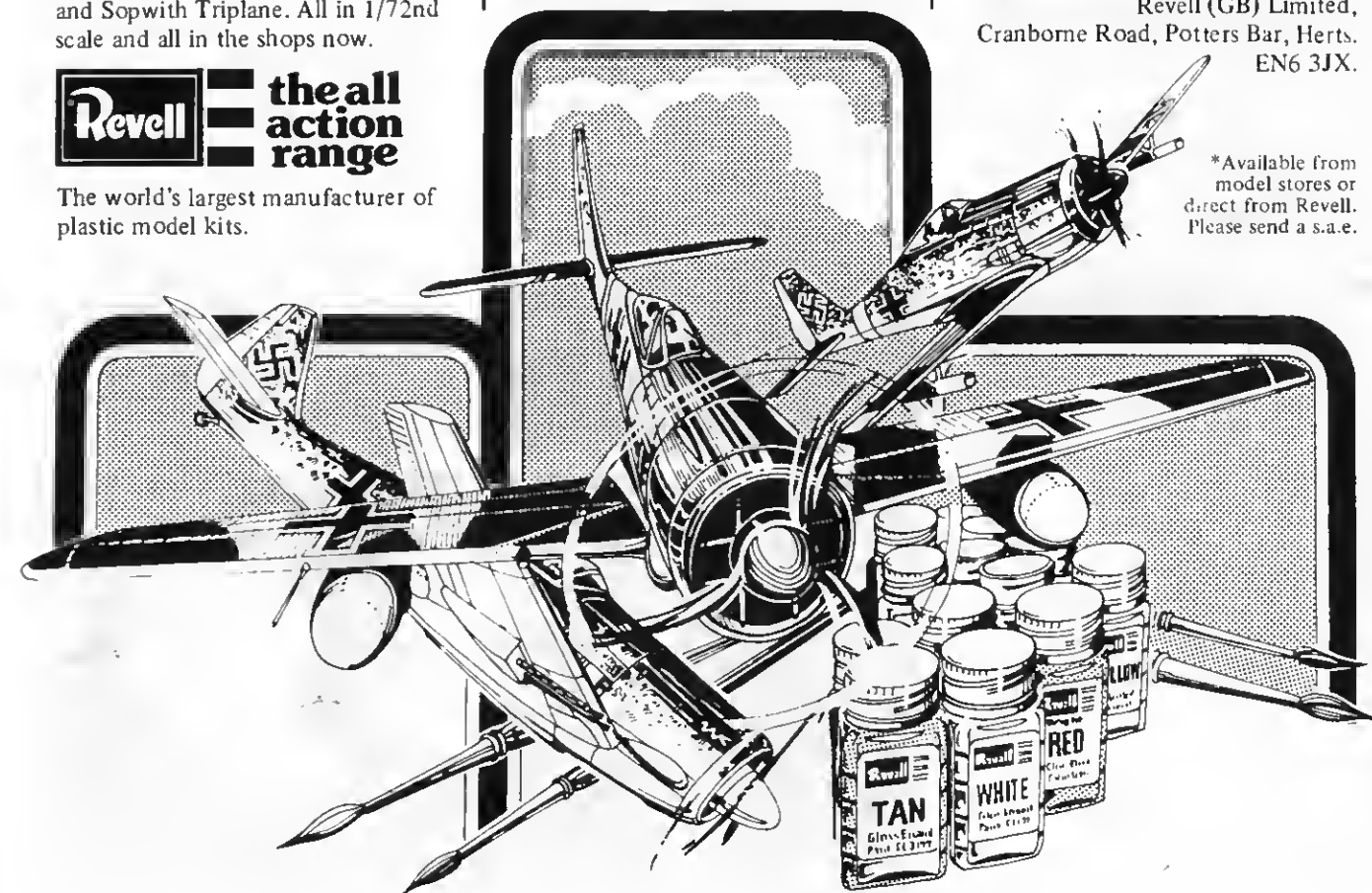
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Continued from page 472

covered by various sets of published rules and readily available books on the subject. I will therefore restrict my comments to additional ideas, listed below (and continued next month) in alphabetical order.

AFVs Those AFVs landing from barges and landing craft should experience little difficulty in getting ashore (beach defences were not erected in July). Dice score 1 to fail. The PzKpfw II with flotation collar should get ashore safely but the *tauchpanzer* needs time to get the turret cover off and the turret sealing ring was a knotty problem. Say a delay of one table move to remove the turret cover, and a dice score of 6, 5, 4 and 3, otherwise the turret is jammed with guns pointing straight ahead. **AFV strengths** Germany: possibly 60 PzKpfw IVs, 180 PzKpfw IIIs, 70 PzKpfw Is and IIs. Britain: perhaps 50 Matildas and Mark I Infantry tanks; 50 Mark I-IV cruiser tanks; 50 medium Mark I-III tanks; 200 light tanks Marks IIA-VI; and say 15 armoured cars. These figures represent armour south of London only.

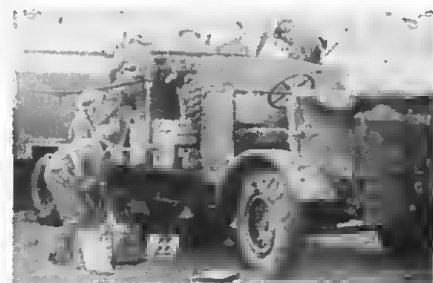
Airborne troops Paratroops would be subject to the usual hazards of dropping in the wrong area or injury on landing. Home Guard units must surround and hold, not try to attack them. Gliders would run the usual risk of damage on landing, and the additional risk of obstacles on landing spaces. Such obstacles should be marked on the maps of both sides, as they would become visible to the glider pilots. In early July perhaps half the likely landing areas might have been blocked. An attempt might be made by paratroops to seize the king or government. This is a decision for the invading player, as the maximum number of airborne troops would be needed for the capture of Dover — still in the plans for July. But a quick blow, cutting off the country's leaders, might just result in a swift victory. To seize king and government would need a full paratroop regiment: to seize the king, a battalion. There should be no warning of paratroop-carrying aircraft until the drop commences.

Rules for drops: land in no order but in close proximity to each other. Dice to see if land on dropping zone: 6 yes, 5 = 6 in to N, 4 = 6 in to S, 3 = 6 in to E, 2 = 6 in to W, 1 = 12 inches from DZ in direction of prevailing

wind. Dice for casualties on landing: 6, 5, 4 = all safe, 3 = 5 per cent casualties, 2 = 10 per cent casualties, 1 = 15 per cent casualties. It would take a move to rally/regroup after a drop.

Assault wave Not all the invasion forces would have landed at the right place and time, in fact there were likely to be heavy losses and considerable confusion, and this was allowed for by the German High Command. Inexperienced crews and bad weather (a low possibility, using normal summer weather rules) could also create high losses. If a clear, fine night say 10 per

Top of page German troops landing in Norway. A harbour was essential for supply and reinforcement of the assault wave and Dover was the chosen objective in July 1940. **Below** One of the British improvisations of 1940, a 12 pdr naval gun (or possibly a 3-inch anti-aircraft gun) on what looks like a Thornycroft lorry (Terry Gander). **Bottom** Standard German 7.5 cm howitzer of the 1939-40 era.



cent turn back owing to faulty navigation or engine and tow problems. Another 20 per cent lands at the wrong place and time. If bad weather 20 per cent returns to home ports, 30 per cent lands at the wrong place and time. Units landing in the wrong place and at the wrong time can have these factors determined by dice throws for plus and minus ten minutes per spot, or plus and minus a mile east or west per spot. Use a blue and red dice for plus and minus. An alternative method is a dice for every craft manned by Army personnel: 6, 5, 4 = land as ordered, 2, 3 = land wrong area (2 to west, 3 to east and dice for miles), and 1 = lost at sea. Reduce these chances for bad weather, ie 6, 5 = land as ordered, 4, 3 = wrong area, 2, 1 = lost at sea.

Brandenburgers Four companies may land, either with the paras or infiltrating with the assault wave. They would wear British uniform or civvies. Their identification should be marked on the underside of their bases. One method of placing them on the table is for the British player to turn his back while his opponent places a number of such figures in position amongst the British forces. (Some Home Guard and Auxiliaries should be in civvies and this would help cover the activities of the Brandenburgers). Damage, casualties, confusion and delays can then be implemented by the figures at the moment chosen by the German player, but such action will probably result in identification of the 'Judas' figure. This aspect of Sealion can be used in Skirmish wargames.

Explosives Retreating British forces destroy petrol at garages by scoring 6, 5, 4, otherwise the petrol remains to be used by the controller of that area. Bridges already mined and wired are blown at will (1 move) but many were mined but not wired. These require two moves to wire up. Other bridges take three moves for engineers to instal explosives, detonating on the 4th move. Bridges ready mined and wired or just mined should be marked on British maps — say no more than 25 per cent mined and wired, no more than 25 per cent just mined. An alternative method is by dice: 6, 5, 4 = bridge wired and mined and demolished, 2, 3 = not wired, takes two moves to wire, then demolished, 1 = charge fails. This introduces more of a surprise and uncontrollable element into the game, so that a player will not know, provided the bridge is marked as mined and wired or just mined, whether it will in fact be demolished. This could cause bridges to be left intact at vital points.



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Squadron codes

and colours 1939-56



By Michael J. F. Bowyer and John D. Rawlings

NA 428 Squadron, RCAF (c)

Used from November 1942, when the squadron formed at Dalton in Yorkshire right through to June 1945 when it was disbanded at Middleton St George whence it had moved in June 1943. It was carried on Wellington IIIs, eg NA:O-BK156, Xs, eg NA:A-HZ476, Halifax II Srs fAs, eg NA:E-HX183, Vs, eg NA:R-EB216, and Lancaster Xs, eg NA:V-KB899.

NB Fighter Command Communications Squadron (c)

Allocation confirmed, no details of its use.

NC 4 Squadron (c)

This code combination was carried by No 4 Squadron on its Mosquito FB VIs at some time between 1945 and 1948. Presumably it first came into use when the squadron was renumbered from 605 Squadron in August 1945, certainly the code was carried, in dark blue, on its aircraft in late 1945, 1946 and 1947. At some date, however, the squadron's Mosquitos reverted to the code 'UP' which had been carried by 605 on its Mosquitos; UP was standard from 1948 onwards. An example of an NC coded Mosquito FB VI is NC:K-SZ980.

ND 236 Squadron (c)

The squadron formed as a fighter Blenheim squadron on October 31 1939 but almost immediately transferred to Coastal Command, eventually replacing its Blenheims

with Beaufighters in September 1941. It is likely that its aircraft carried the code letters 'ND' from formation and they were used until circa 1943. Examples are Blenheim IVF ND:A-V5432, Beaufighter VIC ND:E-X8060

ND 1666 Heavy Conversion Unit, RCAF (c)

This code was used by 1666 HCU from its formation at Dalton on June 2 1943 until March 1945 when it was disbanded at Wombledon. It was carried on Halifax II Srs fAs, eg ND:K-DT 689, Lancaster ffls, eg ND:X-PB671 and Xs, eg ND:E-KB720.

ND Unknown

After the close of World War 2 this code was carried by a Spitfire IX unit stationed in the Suez Canal Zone, for example ND:L-PT618.

ND Unknown

Carried after the war by a Dakota unit of 46 Group, Transport Command, for example ND:Y-KG365.

NE 143 Squadron (c)

This code combination was assumed by 143 Squadron in late 1943/early 1944, its aircraft previously being coded 'HO', then '2'. It flew Beaufighters with the North Coates Wing and Mosquitos with the Banff Wing. Examples are Beaufighter TF X NE:G-NE663, Mosquito VI NE:D-RS625. □

Below In June 1942 Flight Lieutenant A. K. Gatward of No 236 Squadron flew this squadron Beaufighter VIC from his Wattisham base and carried out a low-level strafe of Paris, flying up the Champs Elysee and dropping a Tricolor on the Arc de Triomphe. **Bottom** 'NE' was the code carried by No 143 Squadron when it flew rocket-firing Mosquito VIs on shipping strikes as part of the Banff Wing (IWM).



Ram tank in service 1942-1945

Second part of this series on the Canadian Ram and its derivatives by Joe Sauve

THE RAM CRUISER tanks first started arriving in England during March 1942. It is worth noting that tanks shipped overseas from Canada did not just roll off the boats and on to the battlefields. Much preparatory work was necessary to repair transit damages, clean and install small parts which were shipped in boxes and make minor modifications to the vehicles before issue. Upon arrival in the UK, the Rams underwent final assembly and stowage at British Workshops before issue to No 1 Canadian Base Ordnance Depot. They were then completed for issue to the users.

The first combat formation to receive Rams was the 5th Canadian Armoured Division. It was to receive the first 300 Rams. By December 1942 the 5th CAD had 219 Rams. By that time the 4th Canadian Armoured Division had 128 Rams, a figure which represented its total armoured strength. Both formations had a War Establishment of 340 Cruiser tanks.

During the 1942-44 period before D-Day the Rams served the Canadian Army in both training and active roles. As a training vehicle it provided invaluable service due to its M3/M4 lineage. Crews trained on Rams were able to make the transition to Shermans with little trouble. Some Rams were equipped with 6-foot wading devices and served to train formations in waterborne assault landings.

Although not used as a gun tank in combat it was the active Cruiser tank for the Canadian formations carrying out defensive roles in the UK. 'They also serve ...', as the saying goes.

When the big day arrived, however, the Rams were replaced by Shermans. The Ram tanks were not yet finished. They were recalled to duty because of their M3/M4 chassis. Since this chassis was compatible with Shermans for servicing and parts, the Ram was an ideal vehicle for conversions to special roles.



The main combat versions of the Ram were the turretless vehicles. By removing the turret, turret basket and some ammunition racks, the Ram was converted to a troop-carrying role. The armoured personnel carrier Ram was called the Ram Kangaroo.

The co-driver MG was kept to give support fire. To provide additional firepower, a simple pintle mount for the .30 Cal Browning MG was used, allowing the gun to be positioned in any of the turret ring bolt holes. The heavy armour on this vehicle greatly reduced the infantry casualties during assaults, thus justifying both the idea and the vehicle.

A similar conversion resulted in an ammunition carrier. This vehicle was known as the Ram Wallaby. The ammunition carrier had an armoured roof over the turret hole on some vehicles. This roof had a hatch door for access.

A 17 pdr anti-tank gun-tower was produced for the 6th Canadian Anti-Tank Regiment RCA in a similar way. The 17 pdr towing hook was attached to the rear and towing brackets were attached to the front to allow the gun to be hauled into position.

When the Wasp II flamethrower had proven itself as a weapon, a request was made to equip a squadron of Kangaroos with the flame guns. These vehicles were known as Ram Badgers. The flame gun was installed in the co-driver's MG cupola. The gun was fed by fuel tanks set side by side in the main fighting compartment. The remainder of the Wasp II equipment was stored in front of the fuel tanks. As the war drew to a close, the Badger was modified to include an armoured cover and cupola over the turret hole. One thing worth noting on this vehicle is that the flame gun is mounted upside down with the lip of the gun pointing up.

During 1942 two variants of the Ram were considered but never built. One was a



Below left Kangaroos at Wertle, Germany, April 11 1945. Vehicle names are 'Buckshee' and 'Enid'. **Above** Ram IIC with SBG bridge, England, April 20 1943. **Top** Ram ARV CT-39798, England, March 31 1944 (all photos Public Archives, Canada).

3-inch Howitzer Close Support Cruiser which was delayed pending consideration of the 95 mm CS howitzer. The other was a Scissor Bridge version which was dropped when someone pointed out that the bridge in question could not support a Ram tank. A Ram SBG bridge carrying version was built and used during training. The bridge was supported on the front towing lugs by cables passing over the turret and attaching at the rear of the vehicle.

A self propelled 3.7-inch AA gun version was developed but never got beyond the prototype. The 3.7-inch AA Ram SP was dismantled after trials in late 1943. The gun was converted to a 3.7-inch AA mobile gun and sent to the Canadian School of Artillery for training use. The chassis was kept at Base Ordnance Depot for experimental work.

Other conversions of the Ram tank included an ARV, and a 75 mm gun version. The Ram I ARV was the standard ARV Mk I conversion. It had additional tool stowage boxes on the rear, a fixed turret and dummy gun and assorted recovery tools common to the Mk I recovery vehicle.

Contrary to previously published data, not one but 40 Rams were converted to the 75 mm Mk V gun version. These were used by 'E' Group CACRU as training tanks. All vehicles modified were of the Ram IId and

Ram IId type. No details on the gun mount or mantlet modifications, if any, are available to me. The Ram tank in its various configurations saw service with many units, both Canadian and British. The table shows sample serial numbers by type of Ram and by unit. The date noted beside the serial number refers to the authentication date. That means the information is valid for at least that day. Vehicles were switched between units and therefore I trust only specific data.

One oddity in the serial number assignments occurred. 22 Rams were shipped to the UK with incorrect serial numbers. CT-167832 to 167854 (skip 52) were used instead of CT-159402 to 159424 (skip 22). These numbers were stencilled on the vehicles as usual but changed on arrival in the UK. If you do see a photo of a Ram with these numbers you may have a collector's item.

The second* gives the number of Rams by type in the UK or NWE as of January 18 1945.

The next part in this series will cover the modelling of a Ram in 1:76 scale including markings and detailing. □

*Due to lack of space in this issue, these two tables will appear at the end of this series of articles. Ed.



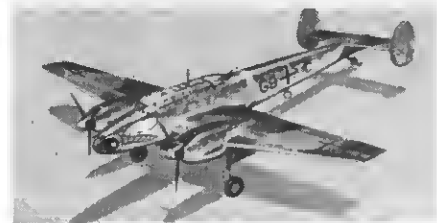
NEW KITS AND MODELS



Frog Vixen and Ar 234.

Brighton and Nuremburg

THERE WERE MANY pleasant surprises in store at the Brighton and Nuremburg Toy Fairs, and the following is almost certainly only a partial listing of forthcoming kits for



Matchbox Me 110 (left) and P-38 Lightning.

1976 due to the physical impossibility of seeing everything in the limited amount of time available! No apologies for the order of appearance, this is just how they came out of the hat...

Aircraft kits, 1:72 scale

Frog — Arado Ar 234, Sea Vixen, Bearcat, B-17E Fortress, Lancaster B Mk 1; Hasegawa — Bf 109E and G, F-16A and B, P-38J/L Lightning, B-17F and G Fortress; Heller (seen in catalogue: may not readily be available) — Me 108, Bf 109G-3, Bf 109K, Buckler

Hasegawa's massive 'Leopold' rail gun (via Modell-Fan).



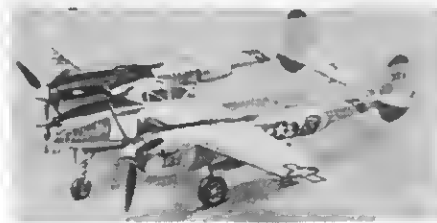
Bu 133, Arado Ar 96, Fieseler Storch, Corsair I, F-104G, Mirage III, Jaguar, Alpha Jet; Matchbox — Ju 87, HS Hawk, Me 110, A-4 Skyhawk, Hawker Hunter, F-104G, BAC Lightning, P-38 Lightning; Revell — F-16; Italaerei — Me 321 Gigant (glider), He 111Z towing aircraft for Gigant, Ju 86E1/2, He 111H6.

Aircraft, other scales

Fujimi — Me 110C (1:48); Hasegawa — A-4 Skyhawk and F-104G/J (1:32); Nitto — Boeing E-3A AWACS, Douglas DC-3, Douglas DC-9, Boeing 707-320B, Boeing KC-135 (all 1:100); Otaki — Fw 190A-8, Bf 109G-6, Curtiss P-40E, P-47D, Spitfire XVIII, F4U-1 Corsair, F6F Hellcat (1:48); Tamiya — Fieseler Storch (1:48).

Military kits, 1:76/1:72

Fujimi — PzKpfw I, PzKpfw I mit 4.7 Pak, PzKpfw II, Marder II, sIG 33, Wespe, PzKpfw I Befehlswagen; Hasegawa — biggest of the



lot — German K5 'Leopold' railway gun, Crusader III, Churchill, Humber Mk II, Daimler Mk II; Heller — AMX 30/105, AMX 13/105; Matchbox — PzKpfw II, Sdkfz 251, T-34, Jagdpanther; Nitto — PzKpfw IV, Nebelwerfer; ESCI — PzKpfw IB, PzKpfw 35(t), Jagdpanther, Panther A, Sdkfz 250, M13/40, M40/75, T-34, Matilda, KV-1C, US 37 mm anti-tank gun, PzKpfw I command tank, Churchill III, Bishop, Valentine, Churchill flail, Churchill bridge layer, 25 pdr and crew. Military kits, 1:35

Heller — AMX 13/75, AMX 13BT, Leopard,



Matchbox Sdkfz 251.

Leopard AA; Nitto — Sdkfz 251/3, Sdkfz 251/10; Italaerei — Crusader III, Katyusha, PzKpfw I, StuG IV; Tamiya — Brumbar, M-60, Chi-Ha, Semovante, 'Pink Panther' Land Rover.

Ships

Fujimi — Ark Royal, Eagle (1:700); Hasegawa — U-boat, Midway, Alabama, South Dakota (1:700); Revell — Titanic (1:570); new Waterline series 1:1200: Enter-

Hasegawa Crusader III.



prise, Hornet, Yorktown, Missouri, Iowa, Wisconsin, New Jersey, Yamato, Musashi, Shinano, Vittorio Veneto, Roma, Littorio, Impero, Bismarck, Tirpitz; Tamiya — Prince of Wales (1:700).

Cars

Matchbox — Surtees TS 16, Aston Martin Ulster (1:32); Revell — Porsche Carrera, Datsun 260Z (1:25).

Please remember that these kits are

Catalogue photo for Revell's F-16 kit in 1:72 scale.



scheduled for release during the course of the year and that few, if any, will be readily available when you read this — so don't deluge your local stockist with demands for kits which he can't yet get. On the other hand, telling him you will be interested in such-and-such a kit when it appears will help him judge which lines are likely to be popular and order sufficient quantities.

Finally, do remember also that kit manufacturers, including Airfix, cannot supply models directly to the public, so there is no point in writing to them if your local stockist doesn't carry a particular line. Instead, try one of the many mail order shops which advertise in this magazine.

Continued on page 480

MODELDECOYS

PLASTIC KIT SPECIALISTS — ASSOCIATE MEMBER I.P.M.S.

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J2M3 Raiden	1/72	60p
J2M3 Raiden (Jack)	1/72	60p
ABM2 Mod 21 Zero	1/72	60p
ABM2 Mod 21 Zero	1/72	60p
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REVELL A/C KITS

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Ki-21 Sally	1/72	2.70
N. JIN-1 S. Gekko	1/72	1.10

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1, 831 Sqn.	
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809 Sqn., F A A.; NF-5A Freedom	
ce, and L-20A Beaver, Dutch Air Force	
A-4F Skyhawk, VA-164, Skyraid	
W, 40 TFS, 355 TFW., with alternate	
60 TFW., and F-86A Sabre, 116 FIS	
G R 1A, 3 Sqn. Lightning F.2A.	



Continued from page 478

M24 Chaffee

THE LATEST AFV kit from the now well established and popular Matchbox range is of the American M24 Chaffee light tank which saw action in World War 2 and later in the Korean conflict. Its chassis was also the basis for a whole family of variants and for this reason also this new kit will be welcomed by the conversion addict.

Moulded in two colours to the usual crisp Matchbox standard and with separate black tracks with their neat end fastening, the kit includes the attractive mini-diorama base pioneered by the company. There are no crew figures. Transfers are for 'JUDY' of the 12th Armoured Division, 43rd Tank Battalion, and 'Skeeter' of the 13th Armoured Division, 24th Tank Battalion.

Price 30p.

Bucker Jungmeister

IT IS ALWAYS a pleasure to welcome a new firm on to the 'kit' scene and doubly so when it is one catering for the enthusiast. It is a sad fact of life that it's the enthusiast who will regularly tackle a biplane model and will accept its challenge and the major kit manufacturers have, supposedly for their limited commercial appeal, neglected this field and left it wide open for the smaller manufacturers to fill the gap.

Pamela Veal Ltd, with a new range, is thankfully stepping into the breach with the

first release in 1:48 scale, the Bucker Bu 122 Jungmeister, to be followed with a Sopwith 7F1 Snipe.

What do you get for your money? Well, for a start you get a very professionally presented five-view drawing, a clear exploded assembly sketch and a sheet of concise instructions. You get two sheets of vacuum-formed mouldings that will stand comparison with any on the market and it is meant as a compliment to both firms when we say that only Rareplanes are as good.

You get also a cast metal engine, airscrew, exhaust pipe, tailwheel assembly and pilot figure, moulded black plastic wheels, clear moulded windscreen, plastic rod for struts and a sheet of transfers for D-E OOA, a pre-war demonstration aircraft.

There are just a few criticisms in that the pilot figure is not very good and the engine cylinders are not too even but most modelers will ignore the pilot and the engine is inside the cowling anyway. The chord of the wing parts is approximately 1/32 inch undersize compared to the plan but which is correct we have not yet ascertained. These are only nit-picks but it is only human nature to look even closer at a good product to try to find just something. The choice of scale at 1:48 is very acceptable as it does give that little bit more scope for effective detailing, finishing and rigging on such a small aircraft, the overall size of the finished model being approximately that of a Gloster Gladiator in 1:72 scale.

The model is available for £2 including postage from Pamela Veal Ltd, Pineacres, Birch Lane, Chavey Down, Ascot, Berks SL5 8PF.

Revell Phantom F4F

THE PHANTOM, in its many guises, cannot now be far off rivaling the ubiquitous Spitfire and Bf 109 as a 'must' in most manufacturers' ranges. It has appeared in nearly all scales and a multitude of versions, some good, some not so good, and a few quite frankly very poor.

In 1972 Revell caused quite a stir when they produced a 1:32 scale kit of this heavyweight fighter which was soon to be seen at exhibitions and competitions in ever increasing quantities. As it is the company's policy to up-date and reissue their kits it is not surprising that the Phantom has, since its debut, appeared in modified form. The latest is the F4F in Luftwaffe markings and it is probably the best of the bunch.

One major step forward is the inclusion of a comprehensive range of underwing stores including Sidewinder and Sparrow missiles, 500 lb bombs and triple racks, and not least of all the 600 and 370 gallon fuel tanks, the latter probably only not being welcomed by the small vac-form concerns on whom we have had to rely until now for these components.

Although the model is very impressive when built straight from the box, if you want a 100 per cent accurate model that will pass the scrutiny of judges, even those who have to use magnifying glasses, there is some homework and subsequent modifications to be carried out.

Such work involves the alteration of the main gear doors, modification to the nose intakes, attention to the wheel wells, a lot of time on adding detail to the cockpit interior and ejector seats, and similar minor items. These points aside, the kit represents good value for money, when one considers the hours of pleasure that can be derived from it, and it does capture the sinister look of the original.

Parts fit well with filler only being needed in very small quantities, surface detail is good and the decal sheet is most comprehensive.

Horsa and Hadrian

SINCE ITALIAEREI introduced their kit of the Gotha GO 244 Assault glider many modelers must have hoped that one day they would continue the theme with the British and American equivalents, the Horsa and Waco CG-4A Hadrian; these hopes have now been realised with two first-rate 1:72 scale kits of these important aircraft.

For many years the only military glider that has been available in injection moulded kits was the dated Frog Hotspur which is now something of a collector's item. Modellers who have a strong leaning towards the aircraft of World War 2 will welcome these additions which might well lead to other similar types being produced and open a new facet of aircraft modelling.

Although the flood of jets, and other powered aircraft has led to the question of what is there left to be produced, the answers have probably not included gliders, not because they were not wanted, but because after so long without them



modellers were resigned to the fact that they were not considered popular enough to warrant the high investment in tooling up.

The Horsa is to Italiaerei's usual standard which in itself is sufficient comment to recommend it. Comprising of over 100 parts which fit together without any problems, construction is straightforward but care must be taken to select which of the two versions is required early on as three vital components need modifying for the Mk 1. The fuselage is designed in the same sections as the original with the rear and front including the cockpit, fitting to a circular centre tube. Interior detail is adequate but can be added to by the man who likes to include everything on his models. The loading doors applicable to the Mk 1 and 2 reveal a fair portion of the inside and the very clear transparencies enable the cockpit detail to be seen with little difficulty.

Wing tip skids, horn balances, hinges for the nose section, ailerons, etc., are all included and reflect this company's attention to the fine detail that is so often missed by some manufacturers. The instruction sheet leaves nothing to doubt, including a compact history as well as full painting details which include interior colours.

Weight must be added to the nose but there is little room for this so many will no doubt use the unobtrusive tail support which is supplied moulded in clear plastic.

The decal sheet is well printed and gives alternative serials as well as markings for USAAF and RAF versions, the red centre for the roundels is printed separately which effectively overcomes the register problem that many mass-produced decal sheets suffer from.

To complete the kit there are two nicely sculptured figures; a paratrooper and the other presumably a loader or Army glider pilot. Price is not known at this time.

Most of the comments made in respect of the Horsa equally apply to the Hadrian. This model has a working hinged nose and of course weights are not needed as the aircraft has a tail down undercarriage.

The simulated fabric covering is a lesson in what can be done with expert tooling as is the authentic 'sag' built into the interior seats. As with the Horsa there are a mass of small external components which save a lot of sprue stretching, and similar internal attention has not been overlooked.

Markings for a USAAF machine used in Sicily or Normandy are included on the excellent decal sheet, as well as roundels for an all silver post-war RAF version. Once again two figures are included this time being a paratrooper and pilot complete with parachute and helmet.

Mods or Mark?

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NEWS FOR WARGAMERS



Blue and Gray II

THIS, THE LATEST SPI Quadrigame, follows on in every essential from the original Blue and Gray game reviewed here in December, and the general comments made there apply here also. The standard playing rules are identical, all that is different are the scenarios and orders of battle. Four American Civil War battles are contained in this game, each with its own separate map sheet: Fredericksburg, Hooker & Lee, Chattanooga and the Battle of the Wilderness. Good exciting stuff, challenging for experienced players but basic enough to make a good starting point for anyone interested in the Civil War and wishing to try board wargaming. Blue & Gray II is available for £6.75 from Simulations Publications UK, Crown Passages, Hale, Altrincham, Cheshire WA15 9SP.

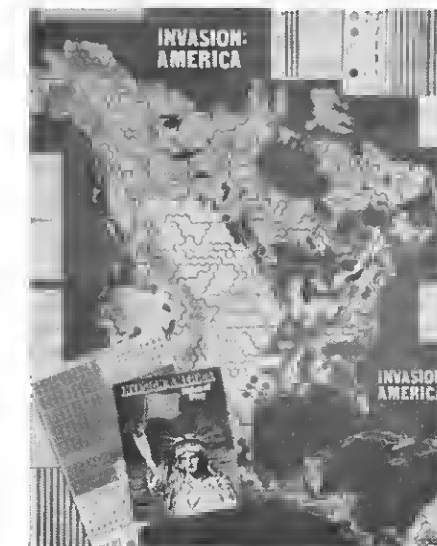
Invasion: America

STAY ON THE same continent for this new and very different game, also from SPI. This is an intriguing fantasy game, based on a set of historical hypothesis which sees a Communist take-over of the whole of Western Europe in the 1980s and the destruction in the Mediterranean of a large part of the US Fleet. These events lead to the formation of a European Socialist Coalition, while with the removal of American power in the far east the Chinese create a Pan Asiatic League, and in South America the developing countries form themselves into the South American Union. America, forced into isolation, launches a pre-emptive nuclear strike at the Soviet Union which is defeated by new laser-operated ABMs. The United Nations — now controlled by the 'big three' coalitions — declares war on the US and all three prepare to invade. It is now the year 2000 and that's where the wargame begins.

The map sheet comes in two sections which join together to give a total playing area of 35 x 46 inches as shown in the accompanying photo. The varied types of terrain in north and central America are well brought out and form a vital feature of the game, with all the usual effects on movement and combat. A wide variety of combat units are supplied, ranging from ships and aircraft to armoured and infantry ground units. A particularly welcome innovation is the use of counters printed on both sides: one gives an approximate indication of unit strength which represents an intelligence 'guess' at its real strength; only when units are committed to combat are they turned over and their real strength revealed. Other than this, most of the other provisions in the rules are standard and will present no problems for any player with a little experience.

The game is a particularly exciting one, with the US/Canadian player(s) having to try to repel the amphibious assaults from three directions, protect their industrial areas and so on. If the invasion(s) succeed, the game can be continued for up to five years (60 game turns) with American guerrilla forces hitting back at the Communist occupation troops. To win, the invading troops have to control all industrial and supply hexes by the end of five years, although of course you don't have to fight the whole campaign — you can just conduct the initial assault itself if you wish. However, with, say, four players, the whole campaign can be fought over a weekend provided everyone is familiar with the situation and the rules.

Overall verdict — a novel treatment of a familiar science fiction theme, which should have wide appeal since, in our experience, a large majority of wargamers tend also to be science fiction readers. Price is £6.75 from Simulations Publications UK at the above address.





BOOKS FOR MODELLERS

Aviation

American Fighters of World War 2, by Alan W. Hall. Patrick Stephens Ltd, Bar Hill, Cambridge CB3 8EL. Price £1.40.

THIS IS THE 14th title in the rapidly expanding Airfix Magazine Guide series of inexpensive reference books for plastic modellers, and follows the same format as the same author's earlier title on RAF fighters of the same period.

After an introductory section on the development of American fighter design and theory prior to the outbreak of World War 2, it is divided into two parts, one describing Army Air Force machines, the second Navy and Marine aircraft.

Each entry, well illustrated with numerous black and white photographs, contains a concise development and service history of a particular fighter, including a basic data table and notes on experimental and other variants. 19 fighters are covered, ranging from the famous Lightning, Mustang, Thunderbolt and Corsair to the Lancer, Kingcobra and Tigercat, to name but a few.

Alan Hall, editor of *Aviation News* and one-time editor of this magazine, is an experienced and talented aviation writer whose knowledge and insight will prove beneficial through this book to those thousands of younger aircraft enthusiasts and modellers who cannot afford the more lavish books on American aircraft, as well as to the 'old hands' who will welcome such a quick and handy basic reference source.

A History of the Douglas Skyraider AEW 1, compiled and published by the British Aviation Research Group, Naval Aviation Research Section. Price £1.00.

APART FROM ITS use by the USN in the Korean war, the Douglas Skyraider is perhaps best known for its service in Vietnam with the US and South Vietnamese Air Forces in attack-bomber and night-attack roles.

The previously neglected history of the AEW1 version with the Royal Navy is documented admirably in this superb monograph, soundly researched, well illustrated and easily readable.

A brief history of the Skyraider's development, with special reference to the AEW version, leads on to the aircraft specification and sections dealing with production and serial allocation, squadron histories, codes and markings and colour schemes. A large proportion of the monograph deals with the role of the Skyraider with the RN and includes individual aircraft histories with their eventual fates whether it be scrap, preservation, or in transfer and continued use with the Swedish Armed Forces.

The 55 monochrome photographs show all but four of the RN Skyraiders, covering every marking/colour scheme, code allocation

and code allocation change carried out by the two Skyraider squadrons and the six flights serving with the Fleet Air Arm. The two pages of scale drawings, although again in monochrome, are well colour coded and include enlargements of flight insignia and notes to modellers.

This book must become a standard reference work on the subject and join its companion volume, *A History of the Westland Wyvern*, as the second of a highly recommended series.

The US Strategic Bomber, by Roger Freeman. Macdonald Illustrated War Series, Macdonald & Co (Publishers) Ltd, Paulton House, 8 Shepherdess Walk, London N1 7LW. Price £3.25.

THE VAST aircraft fleet forming the 300 squadrons of the combined US strategic air forces were committed to a policy virtually untried at the start of World War 2. The events which led to the formation of the doctrine behind the weapon, and the story of the training and hard-won success which resulted in the creation of the post-war US Strategic Air Command are ably described in this 160-page book.

The author, known for *Mustang at War* and other volumes on American aviation history, devotes large sections of this book to the operations against Germany and Japan with the strategy in the two campaigns compared in a separate section. The development and history of the bombers themselves, the B17, B24 and B29 are covered in depth with specifications of models of each type together with the armament and equipment carried. The two chapters which conclude the main work contain tables of operational statistics and notes on command personalities who influenced the development of the strategic bomber, the doctrine or bombing operations. 92 illustrations complement the text and include portraits of these commanders as well as action photographs, aircraft studies and clear maps and diagrams of bomber crew stations and fire positions.

The book as a whole is concise and informative and, apart from the unfortunate omission of an index, makes a fine reference work as well as being an enjoyable read to those interested in the subject.

Military

The French Foreign Legion, by Martin Windrow. Patrick Stephens Ltd, Bar Hill, Cambridge CB3 8EL. Price £1.40.

THIS, THE 13th title in the popular Airfix Magazine Guide series, is a concise but complete guide to the origins and campaigns of France's most famous fighting force. It traces the Legion's story from its origins in the 1830s through all its far-flung campaigns throughout the world, includ-

ing its most famous battles — Camerone, of course, Bir Hakeim and Dien Bien Phu — and at each stage describes how the legionnaires were dressed and equipped, with notes on modelling Legion figures of each period.

Exciting, witty, at times scathing, always packed with an insight bred of years of research into the Legion's history, Martin Windrow has here compiled a guide which will be essential reading for all military historians as well as modellers working from the forthcoming Airfix 54 mm scale kit of a legionnaire and wargamers interested in recreating their battles and campaigns.

The book is illustrated with numerous contemporary photographs and prints, as well as figure drawings showing uniform detail from Gerry Embleton, and could well become a standard reference until such time as a definitive history of this rough, tough, international body of fighting men is composed.

WW2 Journal, edited and published by Ray Merriam. Graphics House Ltd, 218 Beech Street, Bennington, Vermont 05201, USA. Subscription, all countries \$1.50 per copy, \$8.00 per year, \$15.00 per two years.

ORIGINALLY INTRODUCED as WW Enthusiast 1939-1945 in January 1974 but now sporting a new title and format, this is a gen-packed publication aimed at the historian, student and modeller. Volume 2 No 4 contains among its 35 pages (8½ x 11 inches) articles on the Me 262, M-31 tank recovery vehicles, USS Bagley (destroyer), American assault guns, detailing model aircraft cockpits, Maus tank model, kit and book reviews, personality features, etc. Ray Merriam has always produced a useful publication but this new large size enhances its appeal and the quality and interest of the contents never fails to satisfy.

Machine-Gunner 1914-1918, compiled and edited by C. E. Crutchley. Bailey Bros. and Swinfen Ltd, Warner House, Folkestone, Kent. Price £4.75.

SUB-TITLED 'Personal Experiences of the Machine-Gun Corps' and published on behalf of the Machine-Gun Corps Old Comrades Association, this book is a collection of reminiscences, stories and diary extracts, etc., linked by an historical account of the three years of the Corps' life. The unemotional words of the soldiers involved bring home the horrors of the blood bath of the 1914-18 conflict, the awfulness of trench warfare, the apparent stupidity of the directors of the conflict and the bravery of those at the front. Some 60 years after the event this book recalls it all in vivid, human and tragic detail of which we who only know the computerised press button weapons of modern armies can have little comprehension.

After the Battle: No 8 The Battle of the Faise Pocket, No 9 Obersalzberg, and No 10 Malta GC. Battle of Britain Prints Ltd, 3 New Plaistow Road, Stratford, London E15. Price 75p each.

BY NOW THE format and style of the *After the Battle* series has been well established and these three latest offerings are well up to standard. No 8 has many fascinating photographs of the Falaise battles and the same scene today, but it also contains an article on the Confederate Air Force and an



item on Rommel's 'accident' when being attacked by the RAF in 1944. An article on the discovery of Yamamoto's Betty is at the end.

The bulk of No 9 deals with Hitler's mountain home and the contents may not be to everyone's taste, but this is made up for by a special insert dealing with the German surrender in 1945, and in this insert is an excellent facsimile of the actual surrender document. The Overloon Museum, the war exploits of Kennedy and Hitler at Landsberg complete this edition. No 10 is largely devoted to Malta, its relics and the events of WW2, but also included is an article of South Rhodesia's Ian Smith and his RAF career, and ends with the making of the Dam Busters film. All three editions are packed with interest and pictures, many of them in colour, and there will be few military enthusiasts who do not find something of interest in their pages.

Deutsche Pioniere 1939-1945. Eine Dokumentation in Bildern. Kurt Vowinckel Verlag. Price not yet disclosed.

YET ANOTHER in the 'Old Comrades' records of the Wehrmacht during World War 2. This one is on the work and battle records of the various arms of the German engineers and is written almost entirely in the form of picture captions in a style that will be familiar to those who have seen earlier works in the same series. The text is in German but this should not be a hindrance to the perusal of the 443 photographs and maps included. And what photographs they are! Many are quite simply excellent. All are full of interest and detail, not the least of which are those dealing with the many river crossings mentioned — one section deals with pontoon craft many of which are draped in AA guns and one can be found carrying a captured Matilda tank. Another section deals with the parachute engineers and there is a full section dealing with the attacks on the Eben Emael forts.

The photographs show a wealth of detail of equipment, uniforms, etc., and the tank enthusiast will find some rare shots of PzKpw Is carrying demolition charges, and there are some shots of the LWS 300 amphibious troop carrier. All engineer arms are covered from assault engineers to fortress and bridging units, and there are odd sections showing the equivalent in the modern Bundeswehr. Packed with interest, this book will be very attractive to many but at the time of writing we can give no idea of the price.

Missiles

Missiles and Rockets, by Kenneth Gatland. Blandford Press, 167 High Holborn, London WC1. Price £2.40.

YET ANOTHER small volume in the Blandford series, this time sub-titled 'The Pocket Encyclopedia of Spaceflight in Colour'. That sub-title effectively sums the book up for it compresses a large number of facts into a very short space. Starting with the Innovators, the text follows the familiar path from the V2 to Apollo, and also covers the Russian, French and Chinese rockets and satellites. The colour is nicely done and most attractive and all in all this little book would make an ideal present for a space-minded youngster. Not bad value at £2.40.

LETTERS TO THE EDITOR

Motor transport

I SAW WITH interest the note in your November edition on the organisation of a Motor Battalion section. Fortunately I was able to refer to a copy of the Field Standing Orders of the 11th KRRC dated May 1941, and from an equipment chart it shows that the section was composed of eight men including a driver, with three sections to the platoon.

The organisation of the section would have been a corporal as section commander, a lance-corporal as 2ic, and five riflemen. These men would have formed the fighting unit with the driver staying with the vehicle. As your correspondent states, the section vehicle would have been a 15 cwt (either Chevrolet or Bedford) and whilst each man would carry a rifle, the section was equipped with a Bren gun and a Boys anti-tank rifle.

That the rear of the 15 cwt was congested can be realised when it is seen that, in addition to the six riflemen, the LMG, the A/T rifle and the six rifles, storage was also required for 1,400 rounds of SAA, 200 rounds of A/T ammunition, eight packs, two axes, three shovels, one cooker, two gallons of water, three 14 foot square camouflage nets and eight greatcoats.

The motor platoon of three sections was completed by a platoon HQ travelling in another 15 cwt and comprising the platoon commander, platoon sergeant, runner, signaller and one rifleman. Two of these under the sergeant would have operated the 2-inch mortar which would have been carried in the HQ vehicle.

Referring back to the Motor Battalion organisation shown in your July edition, the motor platoon and carrier platoon organisation is accurate, but the company and battalion HQ seem to have been larger than you suggest. From the Standing Orders referred to above, it would appear that the motor company HQ comprised: one 8 cwt truck, one 8 cwt wireless truck, one 15 cwt, one 15 cwt stores and one 15 cwt MT trucks, three scout cars, 11 motor cycles and one 30 cwt cooks' truck. The battalion HQ organisation, although probably organised as you show for administrative purposes, was organised for operations as follows:

Fighting Echelon (including CO). Scout

Contributions

Letters to the editor selected for publication entitle the senders to each receive a free Airfix plastic construction kit, and the publication of photographs from readers is similarly rewarded. Airfix Products Ltd award the kits on the following scale:

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Letters to the editor should be addressed to: the Editor, Airfix Magazine, Bar Hill, Cambridge, CB3 8EL. If a reply is wanted, a stamped addressed envelope (or International Reply Coupon) should be enclosed. All photographs submitted for consideration should be clearly labelled with the sender's name and address on the back of each.

Opinions expressed by correspondents on this page are their own and do not necessarily reflect the views of the Editor or Airfix Products Ltd.

carrier (W/T), scout car, motor car, motor cycle.

Control Group (including 2ic). Scout car, 8 cwt W/T truck, two motor cycles, 15 cwt truck (W/T Royal Signals, rear link to Brigade), 8 cwt (signals platoon), five motor cycles, 15 cwt (Btin HQ).

Signal Group (Signal Sergeant ic). 8 cwt, 15 cwt (Motley AA mounting), 15 cwt signals, platoon (cable laying), 15 cwt (signal stores).

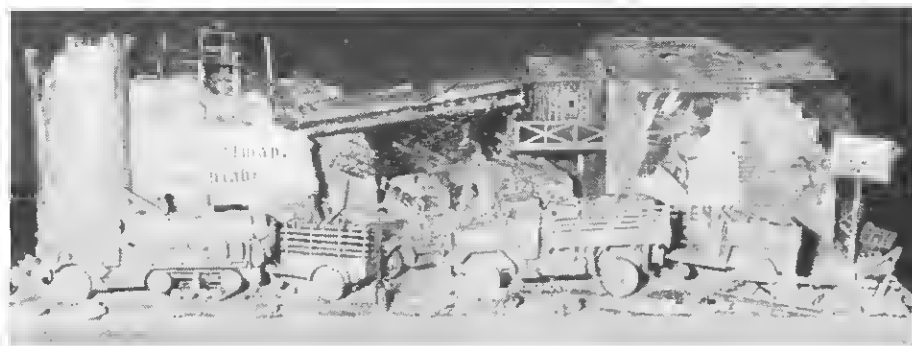
Harbouring Group (OC HQ Company ic). HQ Company 8 cwt, motor cycle.

Medical Group (MO ic). 30 cwt administrative platoon, three 15 cwt administration platoon (stretcher bearers).

Technical Group (TO ic). 8 cwt (administration platoon), 30 cwt (MT stores), 15 cwt (Motley mounting), 30 cwt (ammunition



This photograph of a bronze French medallion dated 1840 commemorating the return of the mortal remains of the Emperor Napoleon from St Helena to Les Invalides, Paris, has been sent in by reader A. J. Swann of 6 Vale View, Llanharan, Pontyclun, Mid-Glam, who would like to hear from any reader with information about it, and about the number of troops involved in the exercise and what regiment(s) they belonged to.



Typical of the high standard of work displayed by members of the London Group of the MAFVA is this 1:76 scale diorama entitled 'Nemesis: Ruhr Pocket April 1944' by 'Mac' Dennigan. Vehicles featured are the M9A1 half-track, Bussing BN 45004, and FWD HAR with M24 trailer. Entire model is about two feet long (photo by Simon Dunstan via David List).

A NEW MODEL soldier society has been formed in Leeds, called the **North Wakefield Model Soldier Society**. For further information contact Mr Paul Burke, 78 Willans Avenue, Rothwell, Leeds LS26 0NG, Yorks.

TWO MAFVA competitions next. First, the **London Group** will be holding its annual **Open Competitions** on May 29 from 10 am to 6 pm at the St John's Ambulance Hall, Kingston Road, Wimbledon, London SW19. All members of the association and accredited modelling societies interested in military vehicles are welcome. The general public will not be admitted, however, so prospective entrants should ensure they have some means of identification on the day. Admission will be 30p, plus 5p for each entry in the competition classes.

Second, the **Cambridgeshire Branch** will be host to the **1976 MAFVA National Competitions**, which will be held at the Priory School, Galfrid Road, Cambridge, on Saturday, July 10, from 10 am. For further information write, enclosing an SAE, to the Exhibition Organiser, Steve Broomfield, 20 Garlic Row, Cambridge CB5 8HW. Judges will include *Airfix Magazine's* editor Bruce Quarrie.

THIS YEAR'S **International Air Fair** at **Biggin Hill** will be held from May 14 to May 16 inclusive. Events will include the usual flying displays as well as air races, hot air balloons and sky diving, plus a vintage transport parade on the ground, so this year's 'do' promises to be even more exciting than on previous occasions.

reserve).

'A' **Echelon. Transport Group** (Transport Officer ic). 8 cwt, 15 cwt, 30 cwt (ammunition reserve), 15 cwt water truck, 15 cwt petrol truck, Royal Signals 3-ton (stores), motor cycle.

LAD Group (REME). No details.

'B' **Echelon. OM Group (OM ic)**. Administration platoon 8 cwt, four 30 cwt (stores), 30 cwt (pioneers and stores).

Cooks and Officers' Mess Group (Cook Sergeant ic). 30 cwt (Officers' Mess), 30 cwt (HO company cook).

Summarising this it would seem that a Motor Battalion as organised in early 1941 had 15 scout cars, 33 carriers, one motor car, 14 8 cwt, 12 30 cwt, one 3-tonner, 54 motor cycles and 70 15 cwt, total 200 vehicles.

D. Webb, Bognor Regis.

Tomahawk colours

MICHAEL BOWYER has written to correct a couple of inadvertent errors in our January and February issues. First, the Tomahawk drawing on page 295, OE:B, should have Medium Sea Grey under surfaces, not Sky as captioned. Second, the top photograph on page 363 is, of course, a Tomahawk, not a Kittyhawk as captioned. Ed.

Events and clubs

INTERNATIONAL Air Tattoo 1976 is to be staged at **RAF Greenham Common** on July 31 and August 1. Proceeds will go to the **RAF Benevolent Fund**. Readers of this magazine will be familiar with the very enthusiastic reports from this event in the past two years, so these dates should be firm diary entries for all aircraft enthusiasts.

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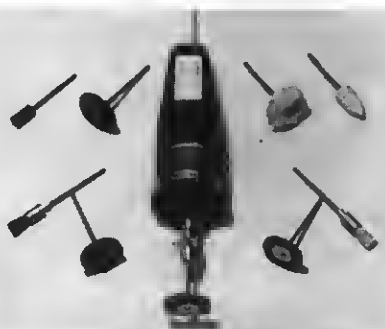
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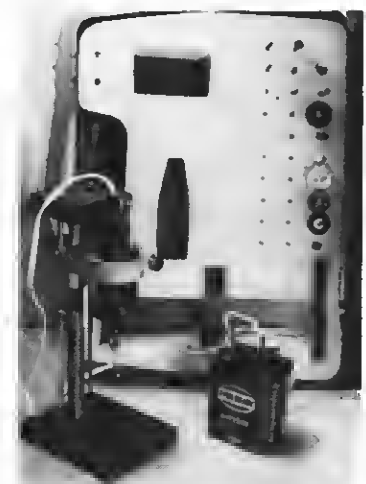
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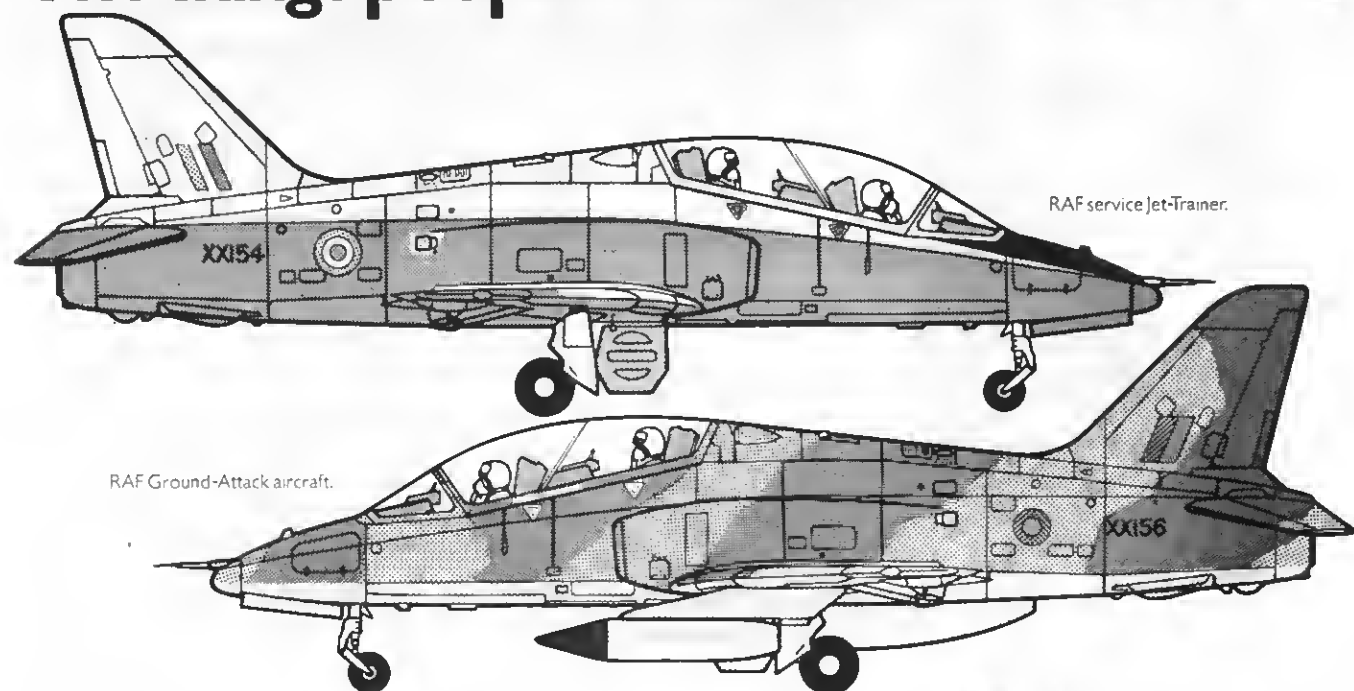
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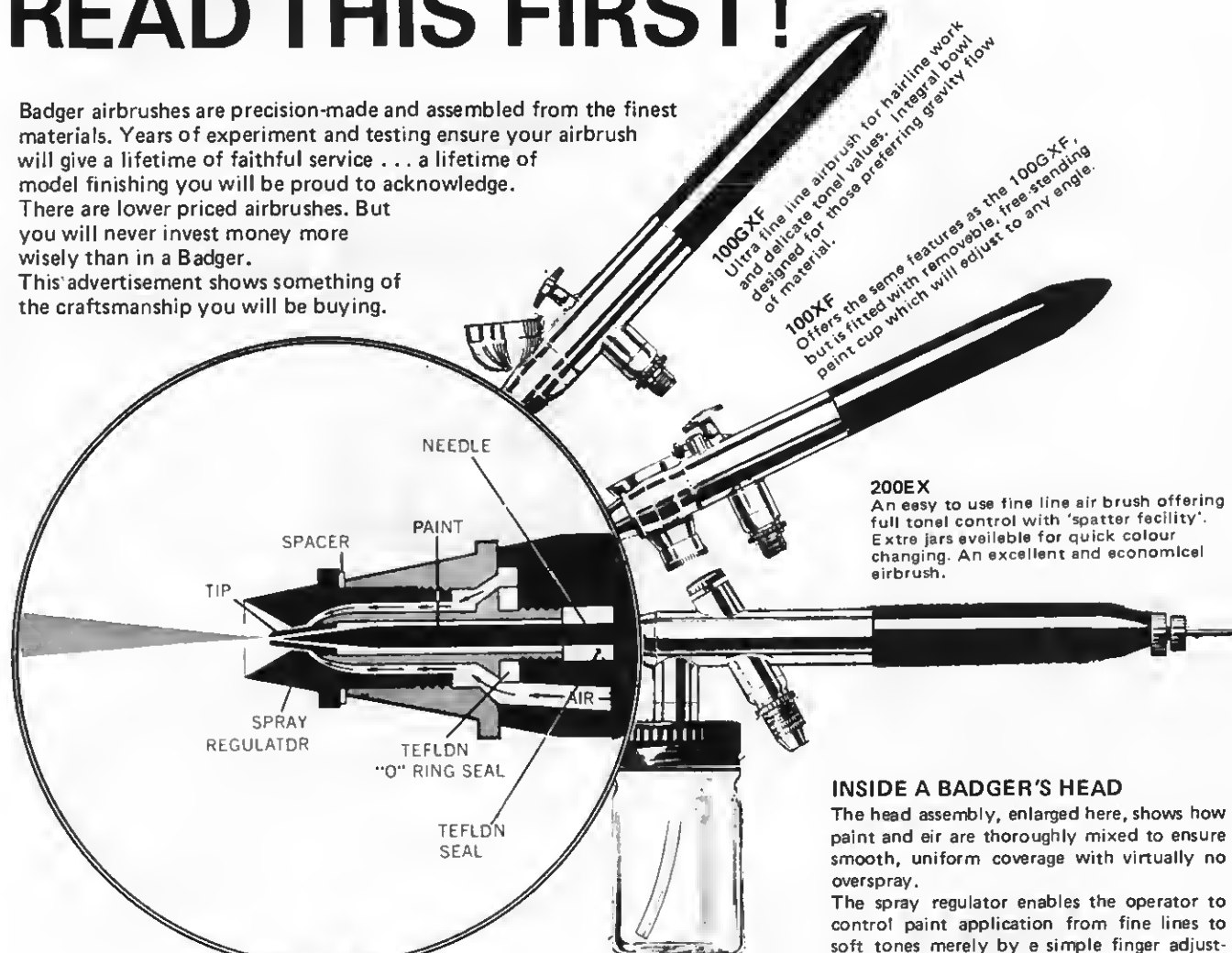
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M4A3E2
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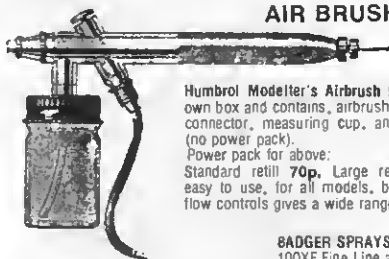
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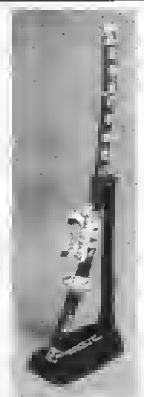
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